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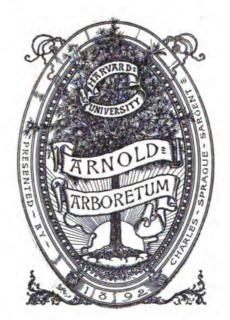
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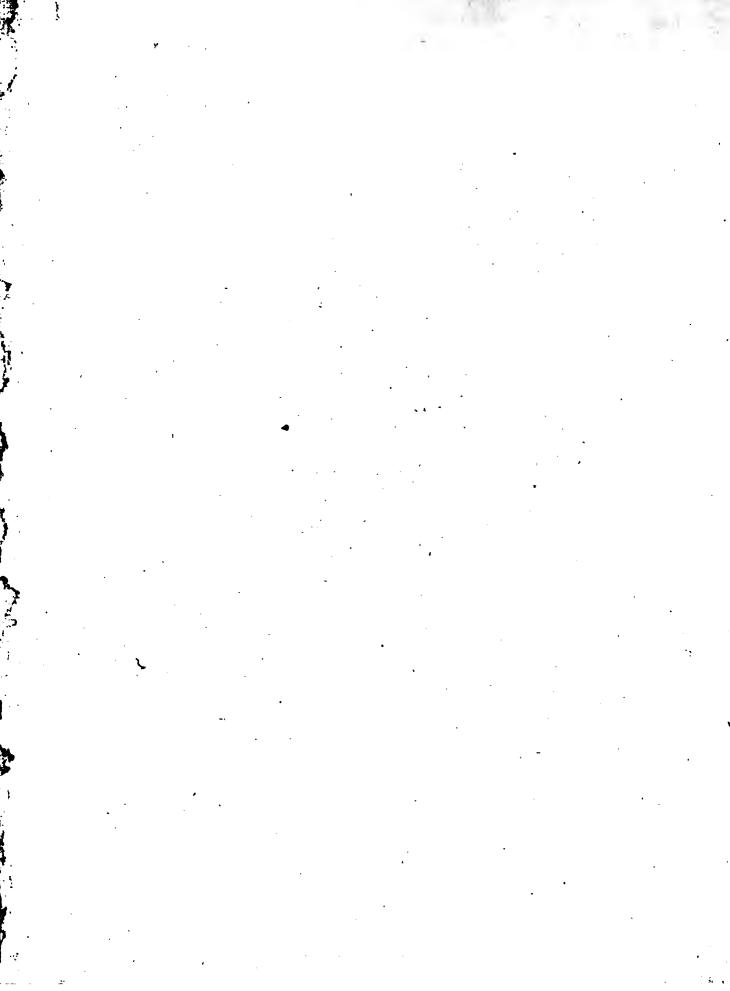
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Adrian Haworth " " " " " " 6

George Jackson " " " " " " 9-10

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A SHORT HISTORY OF THE PLANT,

AS TO ITS TIME OF FLOWERING, CULTURE, NATIVE PLACE OF GROWTH, WHEN INTRODUCED, AND BY WHOM.

THE WHOLE EXECUTED BY

HENRY ANDREWS,

AUTHOR OF THE COLOURED ENGRAVINGS OF HEATHS, IN FOLIO.

LONDON:

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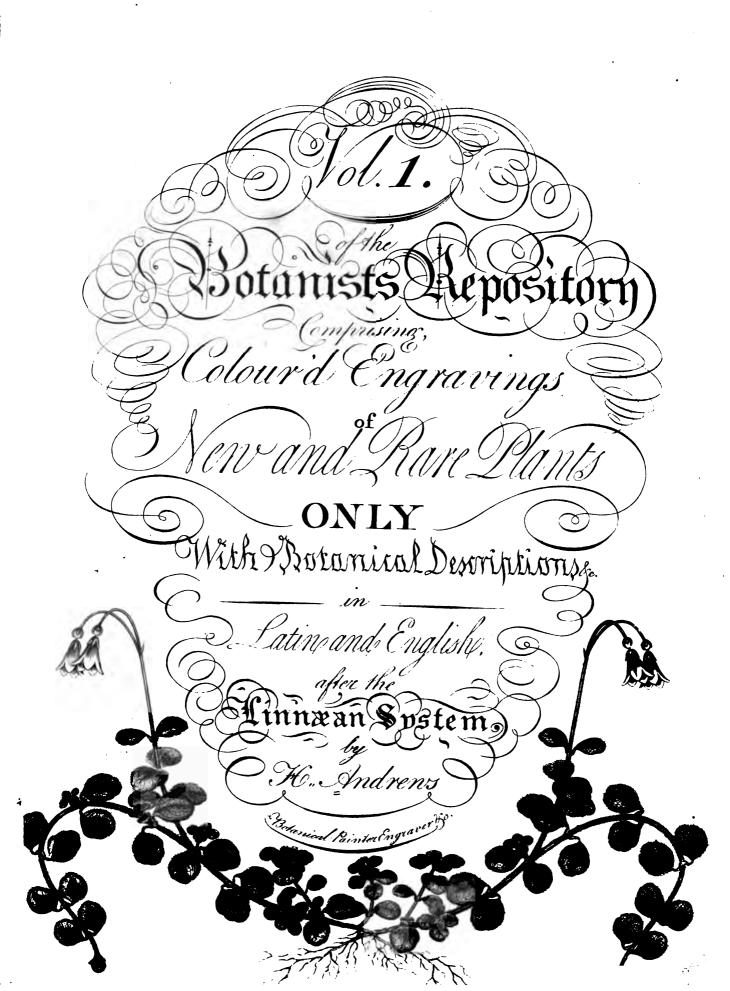
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TO THE PUBLIC.

OWING to the extended and liberal encouragement experienced by the Author, in his publication of the coloured Engravings of Heaths, now far advanced; and being willing to avail himself of the moment in which every branch of the Science of Botany is most particularly patronized; he has undertaken this work, with the hopes (if its merits shall deserve it,) his endeavours, in this his second essay, may meet with similar success.

The Drawings from which the Engravings will be made, shall all be taken from living specimens, by the Author; and the diffection made whilst the slower is fresh, that the true characters, of the parts of fructification, may be the better ascertained.

On each Plate will be given the Diffections as taken in the drawings, numbered in reference to the Letter-press; the whole coloured to imitate drawings, as near as such a work will admit.

The appropriate Characters of every plant will be in Latin and English; the detail in English only. As the sexual system of Linnæus is the only one that will be considered in this work, the greatest regard will be had not to deviate from his principles, or arrangements, as to Class, Order, Generic or Specific Characters. All matter necessary to illustrate the subject, such as name, native place of growth, time of slowering, and culture, will be added.

The Letter-press will be printed by T. Bensley, on a fine wove Paper, Quarto fize, to correspond with the Engravings, of which each Number will contain Three; the price Two Shillings and Sixpence. When a sufficient number shall be published to form the First Volume, an engraved Title-page, &c. will be given gratis, to complete them for binding.

In entering upon a Work, which is designed chiefly to consist of those Plants which have been the latest introduced to this kingdom; it has been thought fit, in giving a specimen of it in the first Number, to sigure an old, but very rare, Alpine, which from its scarcity (to most cultivators) must at least be a new face, although the name may be familiar to many; that in the continuation, when a plant of equal rarity and beauty shall present itself, the purchasers may not think it a deviation from the original plan.



PREFACE.

THE utility of this undertaking at a crisis, when the taste for Botanical pursuits so universally prevails, will, it is prefumed, be readily admitted by all those engaged in them, whether as theorists, collectors, or cultivators. Such a work, under the immediate direction of some principal leader in the science, of this country, has been a defideratum of long expectance; but either from the great expence neceffarily incurred, before any adequate return could be made, or from the trouble attendant on publications, where colouring forms fo confiderable a part, as yet, every fimilar attempt has proved abortive. The Bot. Mag. of Mr. Curtis, a work of fingular merit in its way, has occasionally furnished, it is true, a few specimens of new plants; but the greatest part, as its title-page indicates, consists of those well known, common plants, long cultivated in our gardens; the direct reverse of the proposals and intentions of the author, in the profecution of this. From a wish to prevent confusion, it was a determined principle at the outset of the work, not to give any generic or specific synonims; but to follow the most generally accepted names, of known and named plants, without a cavil, of our best English botanists, or cultivators, if no flagrant error was perceptible, according to the Linnean system: being satisfied, nothing contributed so much to repress the ardour of young botanists as the difficulty of affixing the right name to those plants, which, (from a captious defire in every publisher, to foift in fomething of his own coinage, upon the most trifling supposed difference,) have undergone feveral changes of title. If the plant was a certain novelty, with us, to have followed the fexual fystem, without a schism; upon that truly grand and comprehensive scale of nature; when the formation of a new genus was necessary; if not, to refer it to some one already made, if such was to be found, in any orthodox author: the specific name to be formed from some opposed, leading feature, in the habits of the different species of the genus. But although such were the Author's intentions, when he entered on this business, yet, from a wish to oblige many of the supporters of the work, who have fignified a wish that synonims should be given, an alphabetical Index, with all the various Synonims collated from the best authorities, shall be printed separate for the use of those who may wish for such an addition.

As a fair excuse for the Author, (who throws himself upon the candour of the Public,) in extenuation of the inaccuracies which have, and will necessarily occur in the prosecution of the work, it is just to say, that the difficulties to be encountered, and of which none but those engaged in similar concerns can form any adequate idea, are incalculable; arising chiefly from the nature of a monthly publication, composed entirely of novelty, which cannot be anticipated, and of course, so very little time can be allotted for revisal or correction. To remedy as far as possible such slips, a list of Erratæ will be given, with the Index, at the close of each volume.

KNIGHTSBRIDGE, Oct. 1799.

ERRATA, VOL. I.

- Plate 2. Springalia, lege, Sprengelia. Bloff. one leaf, read, one petal.

 Peri. 4-valvis, 4-locul. 1. 5-val. 5-loc. S. V. 4 val. 4 cells, r. 5 val. 5 cells.
 - 3. Cor. zequila, l. zqualia. Emp. Sheath, r. Sheaths.
 - 7. Calyx, multiflorium, l. multiflorum.
 - 9. Calyx, diciduis, 1. deciduis. Stam. acumenatze, 1. acuminata.
 - 11. Sp. Ch. post roseis, ins. (,).
 - 12. Ord. II. r. IV. Seeds, become, r. becomes.
 - 14. Emp. cup, r. Sheath. Poin. put (,) after beneath.
 - 15. Standard, cut, r. cup.
 - 20. Sem. acumenatæ, l. acuminatæ.
 - 23. Bloff. after spreading, put (,). No. 2 of Ref. put (the) before chives.
 - 25. Sp. Ch. post plenis, inf. (,).
 - 27. Ord. II. r. IV.
 - 30. Line 6th of Descr. leave out (not).
 - 37. Ord. II. r. IV.
 - 41. Bloff. one leaf, r. one petal; divided into fix, r. with fix divifions.
 - 47. Stam. post subulata, ins. (,).
 - 65. Emp. fruit-stalks, r. fruit-stalk.
 - 67. Descr. line 2d, for makes an addition to, r. makes one of.





PLATE I.

CORTUSA MATTHIOLI.

Alpine Sanicle.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

- CALYX. Perianthium quinquefidum, persistens; laciniis obtusis, concavis.
- COROLLA. Monopetala, rotata, quinquepartita, laciniis sub-rotundis, ad quarum basin prominent tubercula quinque.
- STAMINA. Filamenta quinque brevia. Antheræ bipartitæ, oblongæ, erecæ, exteriori parte affixæ.
- Pistillum. Germen ovatum. Stylus filiformis. Stigma fimplex.
- Pericarpium. Capfula ovata-oblonga, utrinque longitudinaliter fulcata, unilocularis, apice quinquevalvi, valvularum marginibus involutis.
- Semina numerofa, oblonga, fcabra.

- EMPALEMENT. Cup with five divisions, permanent; the segments blunt, and concave.
- BLOSSOM. One leaf, wheel-shaped, five divisions, fegments nearly round, having five prominent tubercles at their base.
- CHIVES. Five short threads. Tips divided in two, oblong, upright, and fixed to the blossom by their backs.
- Pointal. Seed-bud egg-shaped. Shaft thread-shaped. Summit simple.
- SEED-VESSEL. Capfule oblong egg-shaped, channelled on each fide, of one cell, the top has five valves, which are turned inward at their margins.
- SEEDs many, oblong, and rough.

SPECIFIC CHARACTER.

Cortusa, foliis cordatis, laciniatis, petiolatis; calycibus corolla brevioribus.

Sanicle, with heart-shaped jagged leaves that have foot-stalks; empalements shorter than the blossoms.

REFERENCE TO THE PLATE.

- 1. The Empalement, and Fruit-stalk.
- 2. The Blossom cut, and spread open, to expose the situation of the Chives.
- 3. The Pointal, magnified.

This beautiful little herbaceous plant, a native of the Germanic Alps, was known to, and described by all the elder, as well as modern botanical theorists; yet till this time, has there not been one good representation of it. Having been nearly lost to us for a number of years, it may be considered as deserving a place amongst those plants we deem rare; as a specimen of such it has been given. It delights much in shade; is persectly hardy; thrives best in a light but pure soil; as dung, or other mixtures, are apt to rot the roots when in a state of inaction; slowering in May and June, and producing seeds. But the surest mode of propagation is by the root, which may be divided with success about September.

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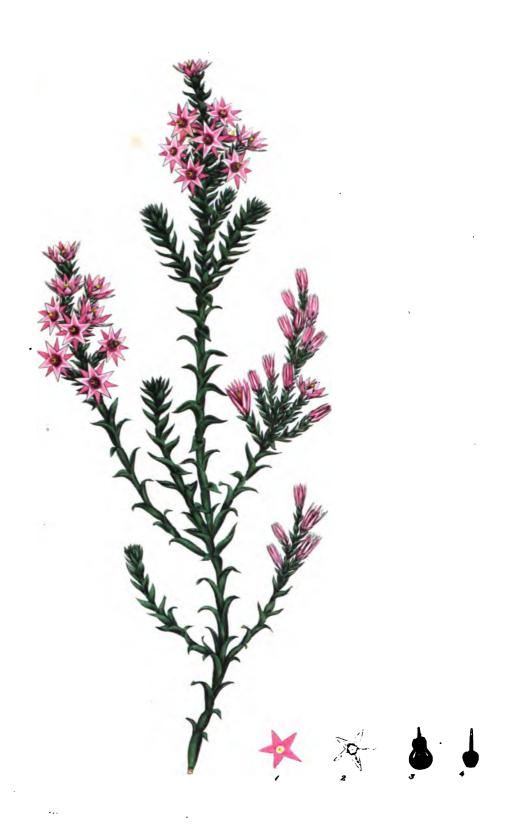


PLATE II.

SPRINGALIA INCARNATA.

Star-flowered Springalia.

CLASS XIX. ORDER VI.

SYNGENESIA MONOGAMIA. Tips united. Flowers fimple.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquefidum, perfistens.

COROLLA. Monopetala, quinquefida, rotata, laciniis acumenatis.

STAMINA. Filamenta quinque, lineares, receptaculo inferta. Antheræ pilofæ, erecæ, conatæ in cylindrum.

Pistillum. Germen superum, turbinatum. Stylus filiformis. Stigma obtufum.

Pericarpium. Capfula quadrivalvis, quadrilocularis.

SEMINA plurima, minima, rotunda.

EMPALEMENT. Cup one leaf, cut into five fegments, and remaining.

Blossom. One leaf, cut into five fegments, wheel-shaped, the divisions sharp pointed.

CHIVES. Five threads, linear, fixed into the receptacle. Tips hairy, upright, united into a cylinder.

POINTAL. Seed-bud above, turban-shaped. Shaft thread-shaped. Summit blunt ended.

SEED-VESSEL. Capfule four valves, four cells.

SEEDS many, fmall, and round.

SPECIFIC CHARACTER.

Springalia, foliis alternis, amplexicaulibus, mucronatis; corollis fub-folitariis, incarnatis, rigidis, micantibus. Springalia, with alternate leaves, embracing the ftem, and fharp pointed; bloffoms mostly fingle, flesh-coloured, harsh, and shining.

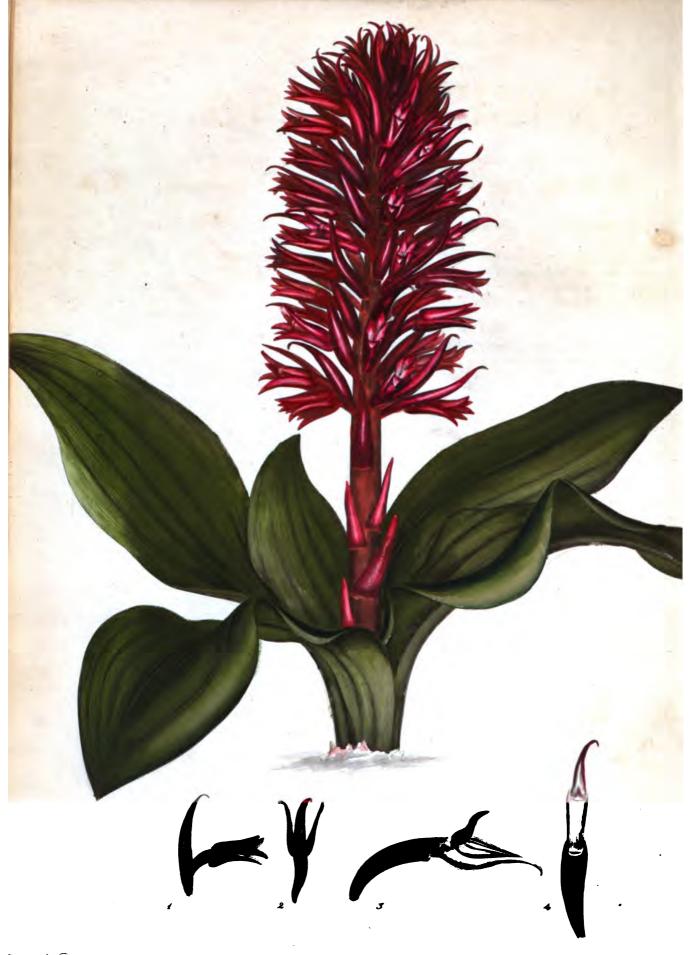
REFERENCE TO THE PLATE.

- 1. The Empalement, (natural fize).
- 2. The Blossom divided from the Empalement.
- 3. The Chives, Pointal, and Seed-bud, (magnified).
- 4. The Seed-veffel, and Pointal, (magnified).

The Springalia, must certainly rank among the most beautiful of the various new genera which have been introduced from New Holland; the delicacy, brilliancy, and number, of its blossoms render it particularly attractive, whilst their extreme permanency adds greatly to its merits; the slower being of such singular durability, as to retain nearly the same appearance when the seeds are perfected, as at their first opening. The figure before us, was taken from a plant in the nursery garden of Messrs. Lee and Kennedy, Hammersmith, who raised it from seeds about three years since, and where it has slowered these two successive years. The Botany-bay plants, (as they are generally called) are best preserved in the greenhouse; but although this is sufficiently hardy for such treatment, yet its situation must be dry, being very susceptible of damps, slourishing best in sandy peat earth; continues slowering through the whole summer; and propagates easily by cuttings. The characters, and habit of this genus, like almost all the plants from New Holland, being perfectly new, there was a necessity to form a fresh generic name for it; which has been done by the deservedly eminent Dr. J. E. Smith, botanical professor, and president of the Linnæan Society.

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PLATE III.

NEOTTIA SPECIOSA.

Flesh-coloured Neottia.

CLASS XX. ORDER II.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix fimplex.

COROLLA. Petala quinque, longitudine æquila, anguste-lanceolata, erecta:

Nectarium monophyllum, indivisum, acuminatum, intra petala interiora positum, basin styli semiamplectens, erectum, superne patulum.

STAMINA. Filamenta duo, ex limbo styli dorsali orta, lanceolata. Antheræ duæ, lineares, longæ, locatæ in loculum filamenti.

Pistillum. Germen inferum, curvatum, fulcatum, inferne attenuatum. Stylus craffus, adnatus labio fuperiori nectarii. Stigma obfoletum.

Pericarpium. Capfula unilocularis, carnofa, longissima, trivalvis.

SEMINA numerofa, minutissima.

EMPALEMENT. Sheath scattered. Fruit-stalk simple.

Blossom. Petals five, of equal length, of a narrow spear-shape, and upright.

Honey-cup one leaf, undivided, sharp pointed, placed between the two inner petals, half embracing the base of the shaft, upright, spreading at the top.

Chives. Two threads, rifing out of the back of the shaft, spear-shaped. Tips two, linear, long, placed in the cells of the threads.

POINTAL. Seed-bud beneath, curved, furrowed, tapering at the base. Shaft thick, growing to the upper lip of the honey-cup. Summit indistinct.

SEED-VESSEL. Capfule with one cell, fleshy, very long, three valves.

SEEDS numerous, very fmall.

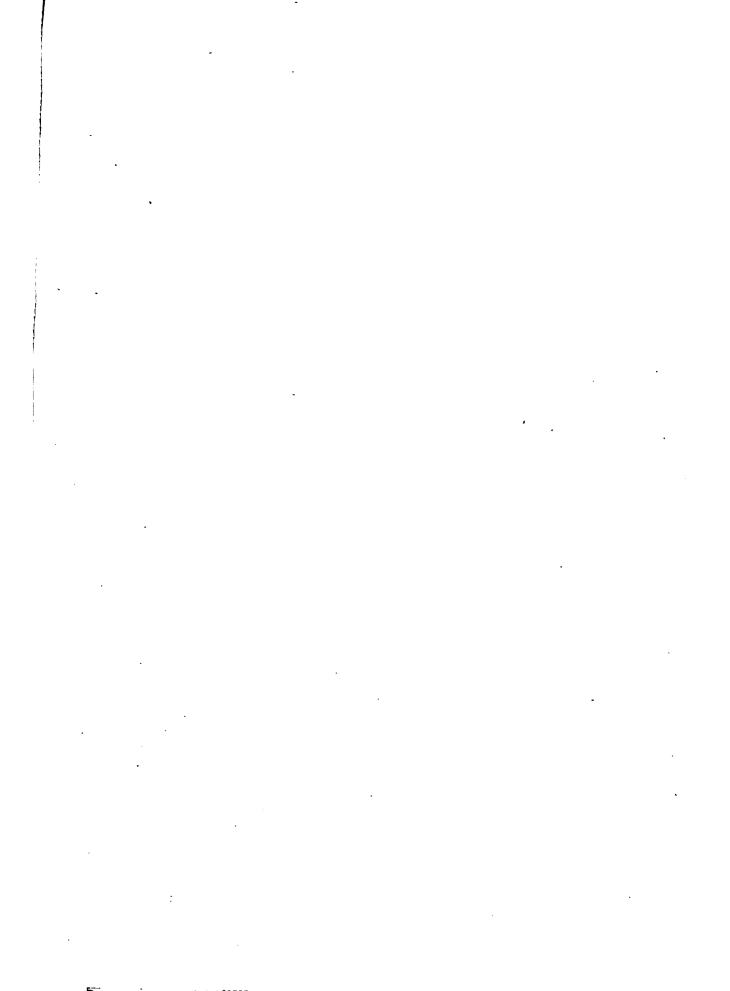
SPECIFIC CHARACTER.

Neottia, foliis radicalibus, undulatis, latolanceolatis, bafi attenuatis; floribus confertis, spicatis, incarnatis, speciocissimis. Neottia, with leaves growing from the root, waved, of a broad spear-shape, tapered at the base; slowers pressed together in a spike, slesh-coloured, and most beautiful.

REFERENCE TO THE PLATE.

- 1. A Bloffom, Seed-bud, and Sheath, (natural fize).
- 2. The Seed-bud, and three Petals of the Blossom; the two inner cut out, to shew the position of the Honey-cup, (natural fize).
- 3. Seed-veffel, and Honey-cup magnified; shewing the situation, and shape of the Chives, within the Honey-cup.
- 4. The same magnified; shewing the situation of the Pointal, at the back of the Honey-cup.

PROFESSOR Jacquin of Vienna, having figured the Neottia in the third volume of his Collectanea, with justice has determined it a new genus, and given it the name it here bears; the whole habit of the plant being entirely distimilar to any old genera. It certainly must be placed somewhere near Limodorum, or Epidendron, from either of which, however, it stands persectly distinct. This is the only species yet in England, and was introduced from the island of Jamaica, about the year 1793, by the Hon. Mrs. Barrington. The drawing from which the present figure is taken, was made (by her kind permission) from a plant in the extensive collection of the Hon. Lady Archer, Ham-common. Like all plants from that island, it requires the heat of a pine-stove, and rich earth, to make it flourish; is increased by the root, and slowers in the early part of the year.



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1 Ladron dauriam.

PLATE IV.

RHODODENDRON DAURICUM.

Dauric Rhododendron.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

GENERIC CHARACTER.

CALYX quinquepartitus, persistens.

COROLLA. Monopetala, rotato-infundibuliformis: limbo patente; laciniis rotundatis.

STAMINA. Filamenta decem, filiformia, longitudine corollæ, declinata. Antheræ oyales.

Pistillum. Germen pentagonum, retufum. Stylus filiformis, longitudine corollæ. Stigma obtufum.

Pericarpium. Capfula ovata, quinquelocularis. Semina numerofa, minima, lineares.

EMPALEMENT of five divisions, and remaining. BLOSSOM. One leaf, of a roundish funnel-shape: the limb spreading; and its segments rounded.

Chives. Ten hair-like threads, the length of the bloffom, bent downward. Tips oval.

POINTAL. Seed-bud five-fided, and dented. Shaft thread-shaped, the length of the blossom. Summit blunt-ended.

Seed-vessel. Capfule oval, five-celled. Seeds many, fmall, and linear.

SPECIFIC CHARACTER.

Rhododendron, foliis glabris utrinque nudis, petiolis longiffimis; corollæ violaceæ, foliis ampliores, rotatæ.

Rhododendron, with smooth leaves, naked on both sides, and long foot-stalks; the blossoms light purple, larger than the leaves, and wheel-shaped.

REFERENCE TO THE PLATE.

- 1. The Bloffom, (natural fize).
- 2. The Chives, and Pointal, (natural fize); one tip detached, (magnified).
- 3. The Seed-veffel, and Pointal, (magnified).

ALTHOUGH this shrub has been described, and is well known to botanists, it has not, till within these very few years, been seen in Great Britain. It is a persectly hardy plant, being a native of the coast of the Black and Caspian seas, and parts adjacent; from whence it has been conveyed to Petersburg by Dr. P. Pallas, and figured by him in his Flora Russica. Mr. Bush was the person who brought it to England, on his return from Russia. The flowers begin to appear in the month of March, continuing through April and May. As yet (from its scarcity) the best method of cultivating it can scarcely be known; but it seems to like a sheltered situation, and light soil, like most of the genus; and has been increased by layers. The drawing was made from a plant, at the nursery of Messirs. Lee and Kennedy, Hammersmith.







PLATE V. GLADIOLUS L'ONGIFLORUS.

Long-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves.

COROLLA, sexpartita, ringens. Petala oblonga, omnia unguibus in tubum conata.

STAMINA. Filamenta tria, fubulata, divifuris alternis petalorum inferta. Antheræ oblongæ.

Pistillum. Germen inferum. Stylus fimplex,
Iongitudine ftaminium. Stigma trifidum,
concavum.

Pericarpium. Capíula oblonga, obtuía, trilocularis, trivalvis.

SEMINA plura, fubrotunda.

EMPALEMENT. Sheath two valves.

BLOSSOM, cut into fix fegments, and gaping.

Petals oblong, having all their claws comnected into a tube.

CHIVES. Three threads, awl-shaped, fixed into each alternate division of the petals. Tips oblong.

POINTAL. Seed-bud beneath. Shaft fimple, the length of the chives. Summit divided in three, and concave.

SEED-VESSEL. Capfule oblong, obtufe, three cells, three valves.

SEEDS many, nearly round.

SPECIFIC CHARACTER.

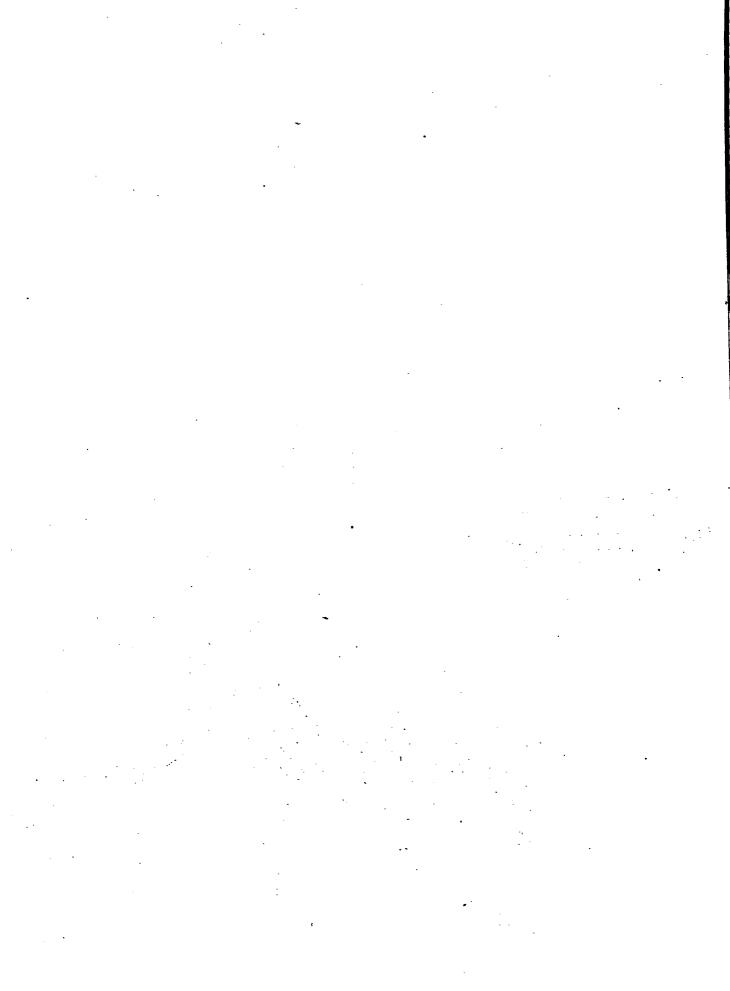
Gladiolus, foliis enfiformibus, plicatis, villofis; corollis tubiformibus, longiffimis; petalis undulatis, reflexis. Gladiolus, with fword-shaped, plated, hairy leaves; blossoms trumpet-shaped, and very long; petals waved, and bent back.

REFERENCE TO THE PLATE.

- 1. A Blossom cut open, to shew the fituation, and insertion of the Threads; the Threads, and Tips, remaining attached.
- 2. The Seed-bud, Shaft, and its Summit.

This species of Gladiolus, (as are most of the genus) is a native of the Cape of Good Hope, about Table Mountain; where the roots of Ixia, Antholyza, Gladiolus, &c. form a chief part of the food of the inhabiting monkies. It came to England amongst many other roots and seeds of beautiful and rare plants, collected by J. Pringle, Esq. of the island of Madeira, when on an excursion at the Cape; and sent by him to Messis. Lee and Kennedy, of Hammersmith. Like most bulbs, it has its period of rest; during which, it should be kept without moisture, but whilst growing, requires abundance; slowering about June, or July, and producing good seeds. It should be treated as a greenhouse plant, and planted in light sandy earth. Like the Crocus, the old root perishing, a number of fresh ones are produced, which may, (if thought necessary) be kept out of the ground two or three months.

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PLATE, VI.

HEMEROCALLIS CÆRULEA.

Blue Day Lily.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYK. Nullus.

COROLLA, sexpartita, infundibuli-campanulata.

STAMINA. Filamenta sex, subulata, longitudine corollæ, declinata; superiora breviora. Antheræ oblongæ, incumbentes, assurgentes.

PISTILLUM. Germen fulcatum, superum. Stylus filiformis, longitudine et situ staminium. Stigma obtuse-trigonum, affurgens.

Pericarpium. Capfula trigona, trilocularis, trivalvis.

SEMINA plurima, fubrotunda.

EMPALEMENT. None.

Blossom, has fix fegments, of a funnel bellfhape.

Chives. Six awl-shaped threads, the length of the blossom, bent downwards; the upper ones the shortest. Tips oblong, fixed by their sides, and turned up at the ends.

POINTAL. Seed-bud furrowed, and above. Shaft thread-shaped, of the length and pofition of the chives. Summit bluntly threecornered, turned up at the point.

SEED-VESSEL. Capfule three-fided, three cells, three valves.

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Hemerocallis, foliis cordatis, petiolatis; corollis cæruleis.

Day Lily, with leaves that are heart-shaped, and have foot-stalks; the blossoms blue.

REPERENCE TO THE PLATE.

- 1. The Chives, and Pointal, as placed in the Bloffom.
- 2. The Seed-bud, Shaft, and Summit.
- 3. A Seed of the shape and fize when ripe.

The variety of character exhibited in this new species of Hemerocallis, so different from its congeners, in soliage, slower, and seed; would almost induce us to think like Gærtner, a generic division necessary; if we were not withheld, by that strong rule of Linnæus, (from which, it will be a leading feature of this work, not to swerve) not to increase the number of genera, but where absolutely necessary. This species, as well as a white variety, which has been sigured by Kæmpser; and continued since him by Welldenow, in his new Species Plantarum, under its present denomination; is a native of China, and introduced to our gardens from thence by G. Hibbert, Esq. of Clapham, from whose most extensive and beautiful collection this specimen was taken. It is as yet cultivated as a hothouse plant, where it flowers in the spring months, perfecting its seeds: perhaps when better known, it may be found, like many Chinese plants, to bear our climate. It is propagated as well by parting its roots, as from the seeds.

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PLATE VII.

PRIMULA CORTUSOIDES.

Siberian Primrose.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

- CALYX. Involucrum polyphyllum, multiflorium, minimum. Perianthium monophyllum, tubulatum, pentagonum, quinquedentatum, acutum, erectum, perfistens.
- COROLLA. Monopetala. Tubus cylindraceus, longitudine calycis, terminatus colo parvo hemisphærico. Limbus patens, semi-quinquesidus; laciniis obcordatis, obtusis. Faux pervia.
- STAMINA. Filamenta quinque, brevissima, intra collum corollæ. Antheræ acumenatæ, erectæ, conniventes, inclusæ.
- Pistillum. Germen globofum. Stylus filiformis, longitudine calycis. Stigma globofum.
- Pericarium. Capíula teres, longitudine fere perianthii, unilocularis, dehifeens apice decem dentato.
- Semina numerofa, fubrotunda. Receptaculum ovato-oblongum, liberum.

- EMPALEMENT. Fence of many leaves, including feveral flowers, and small. Cup one leaf, tubular, five-fided, five-toothed, sharp, upright, and remaining.
- BLOSSOM. One petal. Tube cylindrical, the length of the cup, terminated by a short hemispherical neck. Border spreading, half cut into five divisions; the segments are inversely heart-shaped, and blunt. Mouth open.
- Chives. Five threads, very fhort, within the neck of the bloffom. Tips pointed, upright, approaching, within the tube.
- POINTAL. Seed-bud globular. Shaft threadfhaped, the length of the cup. Summit globular.
- SEED-VESSEL. Capfule cylindrical, nearly as long as the cup, of one cell, opening at the top, with ten teeth.
- SEEDS numerous, and roundish. Receptacle oblong egg-shaped, and loose.

SPECIFIC CHARACTER.

Primula, foliis petiolatis, cordatis, fub-lobatis, crenatis; corollis lætè purpureis.

Primrofe, whose leaves have foot-stalks, are heart-shaped, slightly lobed, and scolloped; blossoms of a bright purple.

REFERENCE TO THE PLATE.

- 1. The Cup, and Fruit-stalk.
- 2. A Bloffom cut open, to shew the fituation of the Chives, and its internal formation.
- 3. The Seed-bud, Shaft, and Summit, (magnified).

This species of Primrose is figured by Gmelin, in his Flora Siberica. It was in the year 1794, that the seeds of this plant were sent by Professor P. Pallas, from Siberia, to Messirs. Lee and Kennedy, of Hammersmith; at whose nursery the drawing of this most charming plant was made: though a native of so cold a clime, it seems with difficulty to endure the severity of ours; thriving best in a pot, under any slight shelter, or a very dry situation if planted out: it is increased by the root, which should be parted in March; and slowers in June, and July.

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Gladiolus alarıs.

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PLATE VIII.

GLADIOLUS ALATUS.

Wing-flowered Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves.

COROLLA, fexpartita, ringens. Petala oblonga, omnia unguibus in tubum conata.

STAMINA. Filamenta tria, fubulata, divifuris alternis petalorum inferta. Antheræ oblongæ.

PISTILLUM. Germen inferum. Stylus fimplex, longitudine flaminium. Stigma trifidum, concavum.

Pericarpium. Capíula oblonga, obtuía, trilocularis, triválvis.

SEMINA plura, subrotunda.

EMPALEMENT. Sheath two valves.

Blossom, of fix divisions, and gaping. Petals oblong, having their claws formed into a tube.

CHIVES. Three awl-shaped threads, fixed into the alternate divisions of the petals. Tips oblong.

POINTAL. Seed-bud beneath. Shaft fimple, the length of the chives. Summit cut into three, and concave.

SEED-VESSEL. Capfule oblong, blunt ended, three cells, three valves.

Seeds many, nearly round.

SPECIFIC CHARACTER.

Gladiolus, foliis enfiformibus, costatis; petalis lateralibus latisfimis.

Gladiolus, with fword-shape, ribbed leaves; the fide petals of the blossom the broadest.

REFERENCE TO THE PLATE.

- 1. The two Sheaths of the Empalement, with the Chives, detached from the Petals, as they find in the Bloffom, and apparently attached to each other; with the natural position of the Pointal.
- 2. The Chives, Pointal, and Seed-bud; one of the divisions of the Summit magnified.

This species of Gladiolus, although so scarce with us, is certainly one of the most common sound near Cape Town; and, notwithstanding its extreme beauty, has been overlooked by most collectors; who, from its great frequency, have generally considered it as forming, undoubtedly, part of every collection of exotics. It is of an extreme delicate nature, and overmuch wet easily destroys it; disfering from most Cape bulbs, in requiring a light loamy earth, and the assistance of a dry stove, to make it flower well; which it will do by such aid, about May, or June; seldom producing seeds, and propagating but slowly by the root. From the fugitive character of this plant, it is difficult to ascertain the first cultivator; for although it does not appear amongst the Gladiolus in the Hortus Kewensis, it must undoubtedly have come into that immense collection at different periods, but never flowered; which is the reason we do not find it there described, which has been done by Linnæus, in his Species Plantarum, under the name it here bears; as well as by Plukenet, in his Phyto-graphia, and others under various synonims. This sigure was taken from a plant that flowered at Messrs. Lee and Kennedy's in 1796.

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PLATE IX.

ATRAGENE CAPENSIS.

Cape Atragene.

CLASS XIII. ORDER VII.

POLYANDRIA POLYGYNIA. Many Chives. Many Pointals.

GENERIC CHARACTER.

CALYX. Perianthium tetraphyllum; foliolis ovalibus, patentibus, obtufis, diciduis.

COROLLA. Petala duodecim, linearia, bafi angustissima, obtusa, patula.

STAMINA. Filamenta plurima, brevissima. Antheræ oblongæ, acumenatæ.

Pistillum. Germina plurima oblonga. Styli villofi. Stigmata fimplicia, longitudine antherarum.

Pericarpium. Nullum.

Semina plurima, definentia in caudam pilofam.

EMPALEMENT. Cup four-leaved, which are oval, foreading, blunt, and deciduous.

BLOSSOM. Petals twelve, linear, narrowest at base, blunt, and spread open.

CHIVES. Threads many, very fhort. Tips oblong, pointed.

POINTAL. Seed-buds numerous, oblong. Shafts. hairy. Summits fimple, the length of the tips.

SEED-VESSEL. None.

SEEDS many, terminating in a hairy tail.

SPECIFIC CHARACTER.

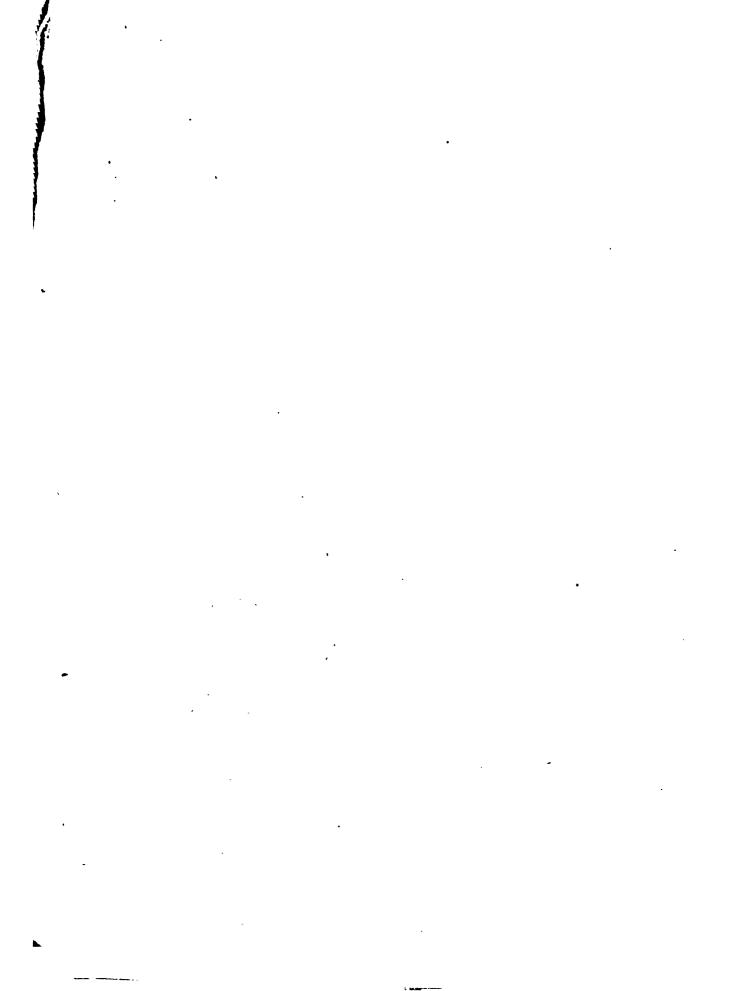
Atragene, foliis ternatis; foliolis incifis, dentatis, rigidis; flore incarnato, femipleno.

Atragene, with three divisions; the smaller divisions jagged, toothed, and harsh; the flower slesh-coloured, and semidouble.

REFERENCE TO THE PLATE.

- 1. A Petal cut off close to the receptacle.
- 2. The Fruit-stalk, Chives, and Pointals; the Chives thrown to one fide, to expose the situation of the Pointals; one tip magnified.
- 3. A Seed of the fize when ripe.

This plant has been confidered by Burmann, Hermann, and other Cape botanifts, as an Anemone, to which genus it certainly may as eafily be referred as Atragene: but as it has been clearly described by Linnæus, under that genus, we have not hardiness enough to dispute his authority. It is (as the trivial name implies) a native of the Cape of Good Hope, but at some considerable distance within land; whence it requires a dry slove to preserve it, suffering much from damps. It is only since the year 1795, that this plant has been found in our greenhouses; being then introduced by Messrs. Lee and Kennedy, nurserymen, where it has slowered and persected seeds; which seems to be the only means of propagating it: the soil it prefers is a mixture of peat and loam; slowering about March, or April.



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Aristia cyanna.

Samuela aktiga (A.) Ni Tayakkaiga

PLATE X. ARISTEA CYANEA.

Blue-flowered Ariftea.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves, laceræ, perfistentes.

Corolla, hexapetala, oblonga, æqualia, obcordata, perfiftentia, patens.

STAMINA. Filamenta tria, erecta, fubulata.

Antheræ fub-fimplices, magnæ.

PISTILLUM. Germen inferum. Stylus filiformis, erectus. Stigma trifidum, concavum, reflexum.

Pericarpium. Capfula oblonga, triquetra, trilocularis, loculis compressis, trivalvis.

Semina plura, compressa, scabrida, sub-semicircularia. EMPALEMENT. Sheath two valves, ragged, and remaining.

Blossom, of fix petals, oblong, equal, inverfely heart-shaped, remaining, spreading.

Chives. Three threads, upright, awl-shaped.

Tips almost simple, and large.

POINTAL. Seed-bud beneath. Shaft threadfhaped and erect. Summit cut into three, concave and reflected.

Seed-vessel. Capfule oblong, three-fided, three cells, cells compressed, three valves.

Seeds many, flat, rough, nearly semicircular.

SPECIFIC CHARACTER.

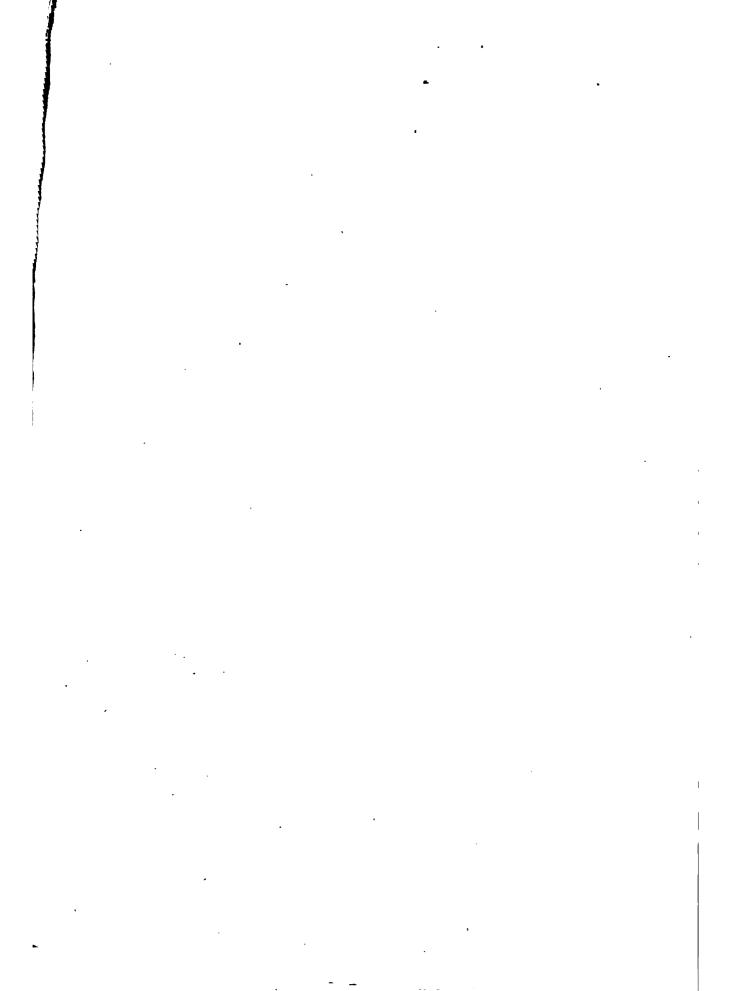
Aristea, foliis ensisformibus, radicalibus; floribus capitatis, cyaneis.

Aristea with sword-shaped leaves growing from the root; the flowers grow in heads, and are of a bright blue.

REFERENCE TO THE PLATE.

- 1. A Valve of the Sheath spread open.
- 2. The Chives, Pointal, and Seed-bud, (magnified.)
- 3. A perfect Seed, (magnified.)

The Aristea is a native of the Cape of Good Hope, and has been described under various synonyms; by Plukenett as a Gramen, by Petiver as Bermudiana Capensis, and by Van Royen, Burmann, and Linnæus, as an Ixia. But although differing from Linnæus is against the fixed intention of this undertaking, where there is a possibility of avoiding it; yet in this instance of alteration he must have acquiesced, having undoubtedly never seen the plant himself. The blossom, seed-vessel, seeds, habit, root, and growth, of the plant, so totally differ from the character of Ixia, &c. that we have not hesitated, in accepting the name given it in the Hortus Kewensis; where, it is said to have been introduced, to that collection, by Mr. F. Masson in 1774; though no specific description is given of it; from which we may conjecture, it never flowered there. The figure here given, was taken from a plant which flowered at Messis. Lee and Kennedy's, in 1797. The Aristea being rather a delicate plant, requires an airy, warm situation in the greenhouse, flowering readily about the month of July, or August; requiring to be kept in a small pot, the soil a light loam. It propagates by seeds, and slips.



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PLATE XI.

GLADIOLUS ROSEUS.

Rose-coloured Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves.

COROLLA, fexpartita ringens. Petala oblonga, omnia unguibus in tubum conata.

STAMINA. Filamenta tria, fubulata, divifuris alternis petalorum inferta. Antheræ oblongæ.

Pistillum. Germen inferum. Stylus fimplex, longitudine staminium. Stigma trifidum, concavum.

Pericarpium. Capíula oblonga, obtuía, trilocularis, trivalvis.

SEMINA plura, fubrotunda.

EMPALEMENT Sheath two valves.

BLOSSOM, of fix divitions, and gaping. Petals oblong, having their claws formed into a tube.

Chives. Three awl-shaped threads fixed into the alternate divisions of the petals. Tips oblong.

POINTAL. Seed-bud beneath. Shaft fimple, the length of the chives. Summit cut into three, and concave.

SEED-VESSEL. Capfule oblong, blunt-ended, three cells, three valves.

SEEDS many, nearly round.

SPECIFIC CHARACTER.

Gladiolus, foliis lanceolatis, tortis, rubro marginatis, pubescentibus; floribus roseis odoratissimis. Gladiolus, with spear-shaped leaves, twisted, red-edged, and downy; blossoms rose colour, and sweet scented.

REFERENCE TO THE PLATE.

- 1. The two Valves of the Sheath.
- 2. A Flower cut open, to expose the insertion of the Threads, the Threads, and Tips remaining attached.
- 3. The Seed-bud, Shaft, and Summit magnified.
- 4. A Seed natural fize, inclosed in its Tunic.

This most beautiful species of Gladiolus, is but of very recent date in England; in the year 1795 it was seen first to blow here, in the collection of J. Ord, Esq. Purser's-cross, Fulham; but has since, repeatedly, at the nursery, Hammersmith, from whence this sigure was taken. Professor Jacquin has sigured this plant, in his last Fasciculus; but, undoubtedly, from a dried specimen, as his sigure gives no idea of the brilliancy of this delightful plant. The fragrance of its slowers, added to the singularity and beauty of its leaves, must place it in the foremost rank of its congeners. To preserve the bulb of this delicate Gladiolus, as soon as the stem begins to decay, it should be taken from the pot, and kept dry till October; when it should be replanted, and treated as other Cape bulbs. It increases by offsets, and flowers about the month of May, or June.

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PLATE XII. GERANIUM GRANDIFLORUM.

Largest slowered Crane's-bill.

CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

GENERIC CHARACTER.

CALYX. Perianthium pentaphyllum: foliolis ovatis, acutis, concavis, perfistentibus.

COROLLA. Petala quinque, obcordata, seu ovata, patentia, magna.

STAMINA. Filamenta decem, fubulata, corolla breviora. Antheræ oblongæ, versatiles.

PISTILLUM. Germen quinquangulare, roftratum. Stylus fubulatus, framinibus longior, perfiftens. Stigmata quinque, reflexa.

Pericarpium nullum. Fructus pentacoccus, roftratus.

Semina folitaria, reniformia, sæpe arillata; Arista longissima, demum spirali. EMPALEMENT. Cup five leaves: leaves eggfhaped, sharp pointed, concave, and permanent.

BLOSSOM. Five petals, inverfely heart-shaped, or egg shaped, spreading, and large.

CHIVES. Ten threads, awl-shaped and shorter than the blossom. Tips oblong, easily turned round.

POINTAL. Seed-bud five-angled, and beaked. Shaft awl-shaped, longer than the chives and remaining. Five reflexed summits.

SEED-VESSEL none. Fruit five dry berries, beaked.

SEEDS, folitary, kidney-shaped, often furnished with a dry husky coat, and a very long awn, which become spiral.

SPECIFIC CHARACTER.

Geranium, calycibus monophyllis, foliis quinque-lobis, glabris, dentatis; floribus ampliffimis, sub-albidis. Geranium, empalements of one leaf; leaves fivelobed, fmooth, and toothed; the flowers very large, nearly white.

REFERENCE TO THE PLATE.

- 1. The Empalement cut open, to shew its tubular structure.
- 2. The Chives, and Pointal, as placed in the flower, (natural fize.)
- 3. The Shaft, Summits, and Seed-bud, (magnified.)

Or all the species of this numerous tribe, introduced to us, from the Cape of Good Hope, this stands fingularly pre-eminent; whether for delicacy of foliage, or beauty of flower, of which, the most sinished drawing would convey but a faint idea. The figure before us, was taken from a plant in the valuable collection of G. Hibbert, Esq. Clapham; from whom we understand, that it was sent in 1794 to the Royal Gardens at Kew, by Mr. F. Masson. To keep this plant in a flourishing condition, it should be kept in a window of the stove, in winter, as the heat of a greenhouse is scarce sufficient at that season. It slowers in July, or August, and requires the soil generally used for Geraniums, a mixture of rotten dung, and loam; being easily propagated by cuttings.

To diffent from most of the late publications on the science of Botany, may seem presuming; yet, when it shall be considered, that we take Linnæus for our sole guide, where that great master has incontestibly fixed a Generic character, to a tribe of plants, which undoubtedly, came clearly under his inspection; from his dictates, ours must emanate, although his authority may be questioned by others. If any good reasons had been found, to disunite a Genus, which nature has so palpably distinguished throughout all its numerous species; he certainly, who had minutely examined so many, would not in his factitious System have allied them; though nature had apparently so done. We must therefore, after him, think no Generic division necessary. For the sake of correctness, where a Genus is so extended in its species as Geranium, Erica, &c. are; the conformity of particular parts, may form a secondary arrangement, as we find it constantly in Linnæus; the Heaths, from the shape of their tips, the Geraniums, from the number of fertile Chives; which a French Botanist of the name of L'Heritier, has thought of sufficient moment to create two new Genera on, Erodium and Pelargonium, retaining the old name Geranium for those only, with ten perfect Chives. Mons. L'Heritier and his followers must, therefore, forgive us for ranking one of his Pelargoniums under the old standard.

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PLATE XIII.

EPIDENDRUM COCHLEATUM.

Purple flowered Epidendrum.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix fimplex. Perianthium nullum.

COROLLA. Petala quinque, oblonga, longissima, patentissima.

Nectarium basi tubulatum, turbinatum, intra petala deorsum positum, ore obliquo, bisido: superiori labio brevissimo, trisido; inferiori in acumen producto.

STAMINA. Filamenta duo, brevissima, pistillo infidentia. Antheræ tectæ labio superiore nectarii.

Pistillum. Germen tenue, longum, contortum, inferum. Stylus brevissimus, adnatus labio superiori nectarii. Stigma obsoletum.

Pericarpium. Siliqua longistima, teres, carnosa.

SEMINA numerofa, minutiffima.

EMPALEMENT. Sheaths scattered. Fruit-stalk simple. Cup none.

BLOSSOM. Five petals, oblong, of a great length, and spreading much.

Honey-cup tubular at the base, turban-shaped, placed between the lower petals, mouth oblique and divided: the upper lip very short, cut into three divisions; the lower terminating in a point.

Chives. Two very short threads, fixed on the pointal. Tips covered by the upper lip of the honey-cup.

POINTAL. Seed-bud flender, long, twifted, and beneath. Shaft very short, fixed to the upper lip of the honey-cup. Summit blunt.

SEED-VESSEL. Pod very long, round, and fleshy.

SEEDS numerous, extremely imall.

SPECIFIC CHARACTER.

Epidendrum foliis oblongis, geminis, glabris, bulbo innatis; fcapo multifloro; nectario cordato, purpureo.

Epidendrum with oblong leaves growing by pairs, smooth, rising from the bulb; stalk many slowered; honey-cup heart-shaped and purple.

REFERENCE TO THE PLATE.

- 1. The Blossom, without the Honey-cup; disposed to shew the situation of the Chives, and Pointal, which are covered by the Honey-cup.
- 2. The Honey-cup.
- 3. The Tips.
- 4. The Summits.

Or all plants, none furnish a more agreeable speculation to the Botanist, than those of this class; the fingular construction of the whole slower, leads the observer to form analogous comparisons from it to animal life: particularly amongst the Orchis, and Ophris, of our own country; where bees, slies, lizeards, and butterslies are accurately shaped in the honey-cup. The Genus Epidendrum, takes its Generic title from its place of growth, being what Botanists term parasitical, that is, growing on another plant; which is the case, with most of the species of this Genus: yet is cultivated here with success, by planting it in a mixture of rotten wood, and loam. A plant, from which this figure was taken, was a present to Messes. Lee and Kennedy from the Honourable Mrs. Barrington, who received it from Dr. Dancer's botanical garden Jamaica, of which island it is a native; therefore must be kept in the stove. It is propagated by dividing the bulbs.



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PLATE XIV.

IXIA REFLEXA.

Reflex flowered Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves, oblongæ, perfistentes, germina distinguentes.

COROLLA. Petala sex, oblonga, æqualia, lanceolata.

STAMINA. Filamenta tria, fubulata, corolla breviora, fitu æqualia. Antheræ fimplices.

Pistillum. Germen inferum, ovatum, triquetrum. Stylus fimplex, erectus, longitudine staminum. Stigma trifidum, crassiusculum.

Pericarpium. Capfula fubovata, triquetra, trilocularis, loculis compressis, trivalvis.

SEMINA subrotunda, plurima.

EMPALEMENT. Cup two valves, oblong, remaining, and dividing the feed-buds.

BLOSSOM. Six oblong petals of an equal length, and spear-shaped.

Chives. Three awl-shaped threads, shorter than the blossom, placed equally. Tips simple.

POINTAL. Seed-bud beneath egg shaped, and three-sided. Shaft simple, upright, the length of the chives. Summit cut into three, and thickish.

SEED-VESSEL. Capfule, nearly egg-shaped, three sided, three cells, pressed together, three valves.

SEEDs many, nearly round.

SPECIFIC CHARACTER.

Ixia floribus ípicatis, reflexis; foliis enfiformibus, glabris. Ixia, with flowers growing in a spike, and bent backward; leaves sword-shaped, and smooth.

REFERENCE TO THE PLATE.

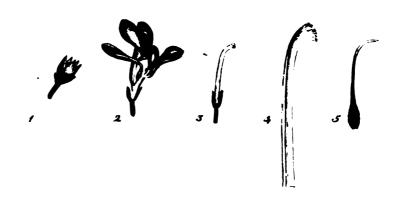
- 1. The two Sheaths of the Empalement (magnified).
- 2. The Bloffom.
- 3. The Chives (magnified).
- 4. The Pointal (magnified).

No genus exhibits greater diversity, either in the figure, or colour of the blossoms, of its various species than Ixia; the extreme delicacy of their colours, rendering it absolutely necessary to protect them both from wind and rain; even watering them over their heads (as is usual with greenhouse plants), at once destroys their brilliancy. The bulbs of this species were gathered at the Cape, by J. Pringle, Esq. from whom they were sent to Messrs. Lee and Kennedy in 1795, at whose nursery they slowered the ensuing spring, when this sigure was taken. No particular treatment is necessary for this plant, other than what is given to Cape bulbs in general, viz, an airy situation, and light soil. Is propagated by seeds, and by the roots.

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PLATE XV. ANTHYLLIS ERINACEA.

Blue Broom of Spain.

CLASS XVII. ORDER III.

DIADELPHIA DECANDRIA. Chives in two fets. Ten Chives.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, ovatooblongum, parum inflatum, villosum; ore quinquedentato, inæquali; persistens.

COROLLA papilionacea:

Vexillum longius, lateribus reflexis, ungue longitudine calycis.

Alæ duæ, oblongæ, vexillo breviores.

Carina compressa, longitudine alarum, alis fimilis.

STAMINA. Filamenta decem, connata, affurgentia. Antheræ fimplices.

PISTILLUM. Germen oblongum. Stylus fimplex, adfeendens. Stigma obtufum.

Pericarpium. Legumen fubrotundum, tectum intra calycem, minimum, bivalve.

SEMEN unum, alterumve.

EMPALEMENT. Cup of one leaf, oblong eggfhaped, a little swelled, and hairy; mouth cut into five unequal teeth; permanent.

BLOSSOM, butterfly-shaped.

Standard longer, fides bent back, the claws as long as the cut.

Wings two, oblong, fhorter than the ftandard.

Keel compressed, as long as the wings, and like them.

CHIVES. Ten threads, connected, rifing upwards. Tips fimple.

POINTAL. Seed-bud oblong. Shaft fimple, afcending. Summit blunt.

SEED-VESSEL. Pod roundish, covered by the cup, very small, of two valves.

SEEDS. One or two.

SPECIFIC CHARACTER.

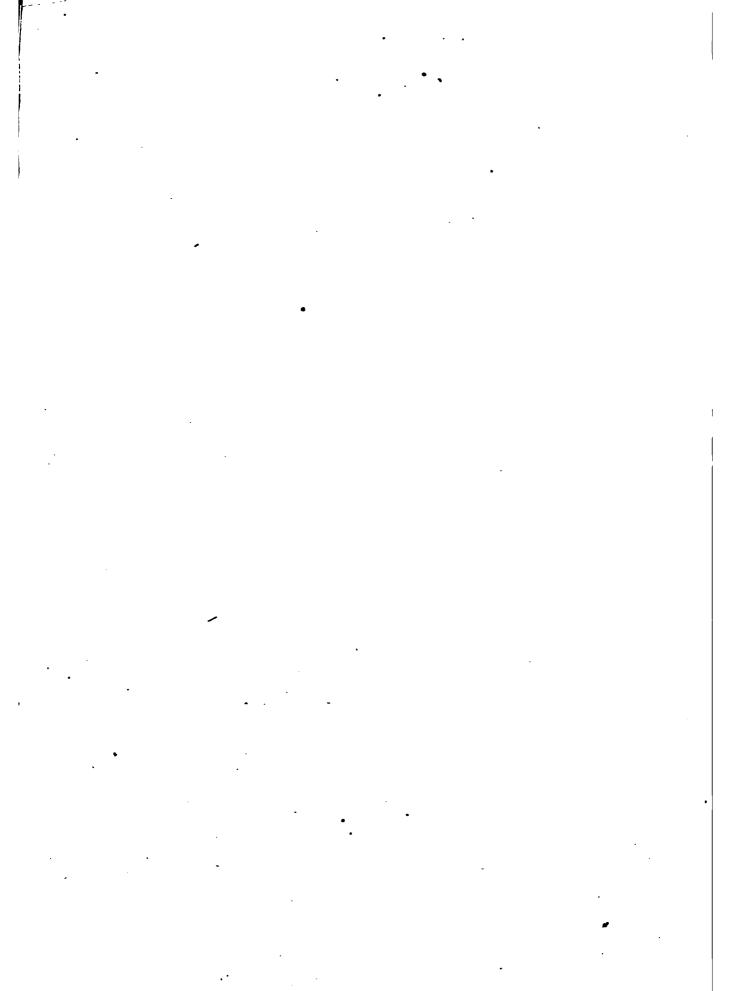
Anthyllis fruticosa, spinosa; foliis simplicibus; floribus ex cæruleo purpurascentibus.

Broom, shrubby, and covered with prickles; leaves simple; blossoms of a purplish blue.

REFERENCE TO THE PLATE.

- 1. The Cup.
- 2. A Bloffom, the cup taken off to shew the exact situation and shape of its various parts.
- 3. The Chives, as they inclose the pointal (natural fize.)
- 4. The Threads magnified, and cut open, to shew their tubular shape.
- 5. The Pointal, magnified.

Owing to the difficulty in propagating and preferving some plants, although frequently introduced to us, and well known; yet are they more scarce to be sound, in our best collections, than plants of seemingly more difficult acquisition. This species of Anthyllis has been mentioned under various synonyms by most botanical authors from Clusius downwards. Mr. T. Johnson, in his edition of Gerard of 1633, has given a description of this plant from Clusius, and a cut; both of which are excellent (considering the then infant state of the art of engraving), under the title of Genista spinosa humilis; Dwarf Furze. It is termed Erinacea by Clusius (says he), from the Spanish name of the hedge-hog, Erizo, of which country it is a native, in the kingdom of Valencia: from which we might infer, that, like other plants of that country, it would live through our winters; which is not the case. It must be kept as a greenhouse plant, and-watered but sparingly. The soil it prefers is a light loam; is propagated by cuttings, and flowers in April, or May.



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PLATE XVI. AZALEA PONTICA.

Yellow Pontic Azalea.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquepartitum, acutum, erectum, parvum, perfistens.

COROLLA. Monopetala, campanulata, limbus quinquefidus: laciniarum lateribus inflexis.

STAMINA. Filamenta quinque, filiformia, receptaculo inferta, libera. Antheræ fimplices.

Pistillum. Germen ovatum. Stylus filiformis, longitudine corolla, perfistens. Stigma obtusum.

Pericarpium. Capfula ovata, quinquelocularis, quinquevalvis.

Semina plurima, compressa.

Oss. Figura petali in aliis infundibuliformis, in aliis campaniformis eft; stamina in quibufdam declinata longissima.

EMPALEMENT. Cup one leaf with five divifions, sharp pointed, upright, small, and permanent.

BLOSSOM. One petal, bell-shaped, margin fivecleft: segments with the edges bent inwards.

CHIVES. Threads five, thread-fhaped, fixed to the receptacle, and loofe. Tips fimple.

POINTAL. Seed-bud egg-shaped. Shaft thread-shaped, the length of the blossom, permanent. Summit blunt.

SEED-VESSEL. Capfule egg-shaped, with five cells, and five valves.

SEEDS many, and flat.

Obs. The shape of the petal in some is sunnelshaped, in others bell-shaped; the chives in some are bent downward, and very long.

SPECIFIC CHARACTER.

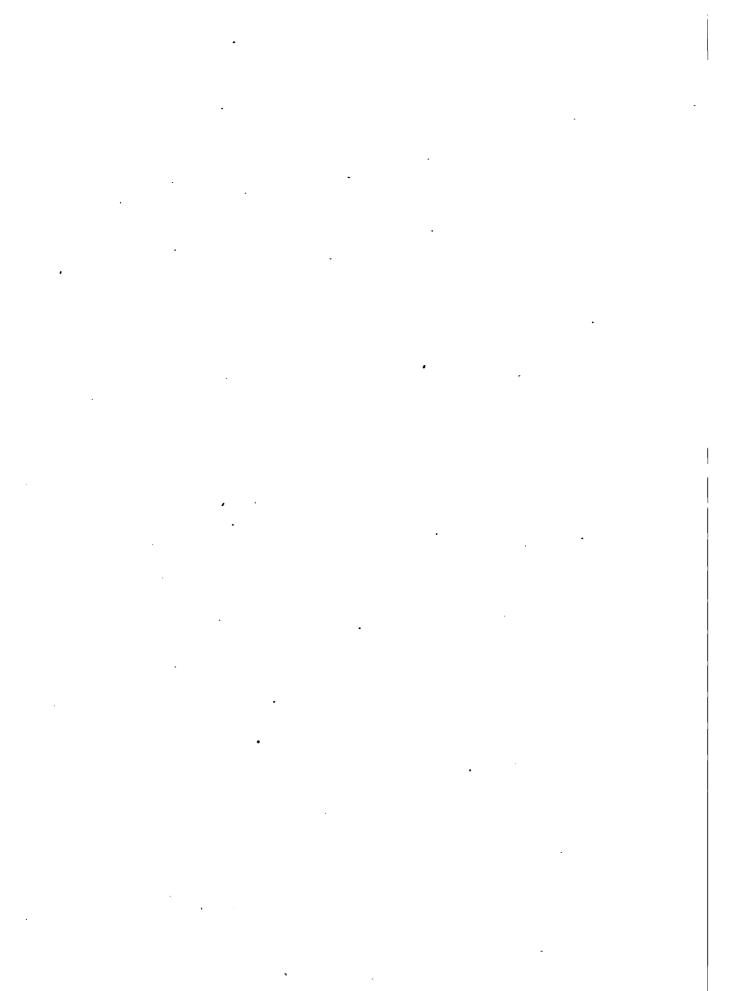
Azalea, foliis ovato-oblongis, pilofis, alternis; floribus ampliffimis, luteis; staminibus longissimis, declinatis.

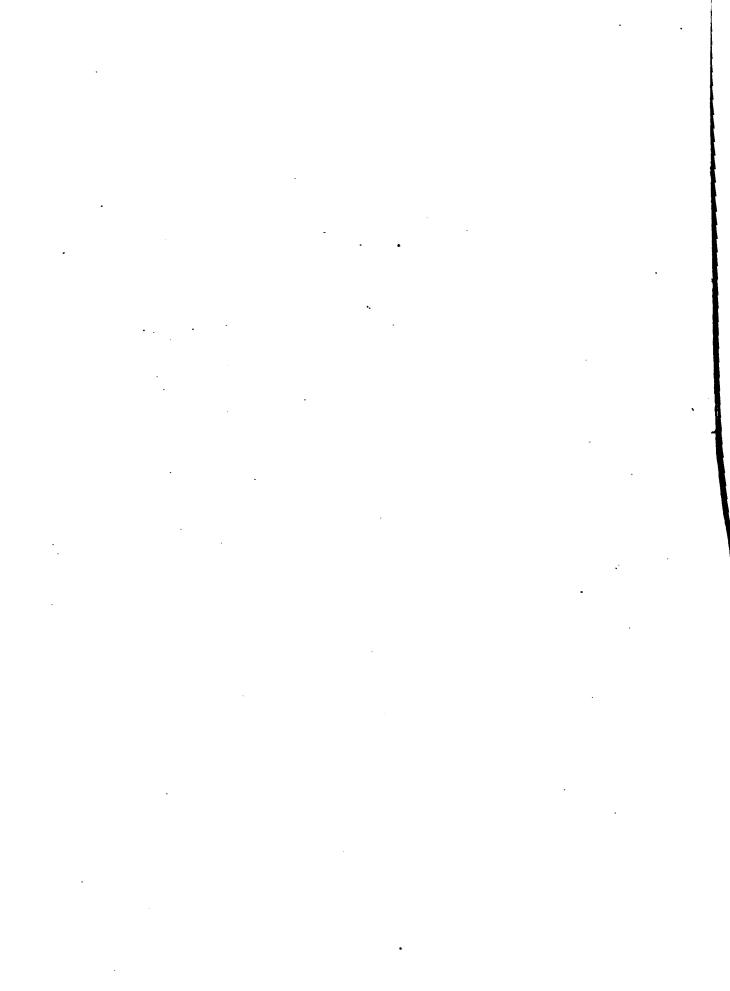
Azalea, with oblong egg-shaped leaves, hairy, and alternate; flowers very large, and yellow; chives very long, and bent downward.

REFERENCE TO THE PLATE.

- 1. The Empalement, (natural fize.)
- 2. The Chives as they appear within the bloffom.
- 3. The Seed-bud, Shaft, and Summit.
- 4. A Capfule cut horizontally, exposing the number of its cells.

AMERICA has furnished our gardens with an extensive variety of beautiful shrubs; amongst them, the Azaleas hold a diftinguished place; some for the beauty, others for the fragrance, of their blossoms: the present species far surpasses all of them for both. It is a native of the coast of the Black Sea, or Pontus Euxinus, through the whole of its extent, on the Afiatic fide, from the city of Trebifonde; from whence its trivial name. That a plant of such extreme beauty, and sweetness, should so long have been a stranger to our European gardens, though known to, and described by, so many botanical travellers, must feem matter of wonder; but still it is an uncontested fact. Monf. Tournefort, in his Voyage to the Levant, has given an ample description of it, under the title of Chamærhododendros Pontica maxima, mespili solio, flore luteo; where he says, it grows to the height of seven or eight feet, and that the flowers are of a most exquisite flavour. Dr. P. Pallas, in his Flora Rossica, has likewife figured, and described it, under the name it here bears; but apparently his drawing was made from a dried specimen, as the brilliancy of the flower is by no means preserved; but it is to him we are indebted for this fine plant. In his voyage to the Crimea and countries adjacent, in 1792, he procured the feeds of this, amongst many other valuable and rare plants; parcels of most of which were sent by him to Messrs. Lee and Kennedy, Hammersmith; by whom plants were raised of it, and many other forts, the next year. It is a deciduous shrub, extremely hardy, and blows early in the spring; is propagated, like other Azaleas, by layers and seeds; grows best in peat earth, with a small portion of loam.







Proten formasa

PLATE XVII. PROTEA FORMOSA.

Coronet Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium commune, imbricatum; fquamis inæqualibus, perfistentibus.

Proprium nullum.

COROLLA tetrapetala. Petala sæpe cohærentia, sæpius divisa, lineari-oblonga: unguibus erectis, limbo patenti.

STAMINA. Filamenta nulla. Antheræ quatuor, lineares, vel oblongæ, sub apice limbi corollæ insertæ.

Pistillum. Germen superum, oblongum. Stylus filiformis, corolla longior. Stigma simplex, clavatum.

Pericarpium nullum. Calyx patens, induratus, vix mutatus.

Semina solitaria, subrotunda, vel compressa.

RECEPTACULUM commune nudum, villosum, paleaceum, vel conus.

EMPALEMENT. Cup common, scaled; scales unequal, and remaining.

Proper none.

BLOSSOM four-leaved. Petals frequently adhering, oftener divided, of a linear oblong fhape: claws upright, border spreading.

CHIVES. Threads none. Tips four, linear, or oblong, fixed within the border of the bloffom.

POINTAL. Seed-bud above, and oblong. Shaft thread-shaped, longer than the blossom. Summit simple, and club-shaped.

SEED-VESSEL none. Cup spreading, hard, and scarcely changing.

SEEDS folitary, nearly round, or flat.

RECEPTACLE the common, is naked, hairy, chaffy, or a cone.

SPECIFIC CHARACTER.

Protea, foliis lanceolatis, pubescentibus; caule villoso; flore aurantio flavo; semine subrotundo, glabro, magnitudine pisi majoris. Protea, with lance-shape downy leaves; stem hairy; blossom orange yellow; seed nearly round, smooth, the fize of a large pea.

REPERENCE TO THE PLATE.

- 1. The Flower complete, as it stands on the Receptacle.
- 2. The Bloffom expanded, to shew the situation of the Chives.

Or all the varied genera of plants which decorate that mine of botanical riches, the Cape of Good Hope, and the adjacent country, no one stands more conspicuous than Protea. Few travellers who have not noticed the fingularity and beauty of their foliage; indeed they are of fuch extreme brilliancy, that no one, however indifferent to botanical researches, can pass them unobserved; forests of them being so numerous, the Protea Argentea, or Silver Tree, produces almost the only wood of the country; growing to the height of thirty or forty feet. But although the leaves of this numerous tribe are mostly beautiful, many of their blossoms are but trisling, except in the eye of the botanist: the Protea Formoía, however, is one amongst many which stand as powerful exceptions: the great beauty of this charming plant has induced us to adopt the trivial name it here bears. It has been introduced to the Royal Gardens at Kew by Mr. F. Masson, botanical collector to his present Majesty; from whose liberal patronage the science of Botany has of late been brought into such general estimation. This species, from the downy character of the whole plant, is apt to damp, if not kept in an airy fituation in winter; though the warmth of a common greenhouse is quite sufficient for its protection. It is with difficulty propagated by cuttings; and has not hitherto perfected its feeds in this kingdom. Our drawing was made from a plant which flowered in the nursery of Messrs. Lee and Kennedy, in the year 1796, about the month of August.

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Corno albo.

PLATE XVIII.

CORREA ALBA.

White Correa.

CLASS VIII. ORDER L.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quadridentatum, campanulatum, erectum, perfiftens.

COROLLA. Petala quatuor, oblonga, concava, apice reflexa, marginibus crassis.

STAMINA. Filamenta octo, erecta, filiformia, receptaculo inferta.

PISTILLUM. Germen turbinatum, fuperum. Stylus filiformis, longitudine staminium. Stigma obtusum.

Pericarpium. Capfula coriacea, lanata, quadrilocularis, quadrivalvis.

SEMINA quatuor, folitaria, fubrotunda.

EMPALEMENT. Cup of one leaf, five-toothed, bell-shaped, upright, and permanent.

BLOSSOM. Four petals, oblong, concave, reflexed : at the end, and thick at the edges.

Chives. Eight threads, upright, thread-shaped, and fixed into the receptacle.

POINTAL. Seed-bud turban-shaped, and above. Shaft thread-shaped, the length of the chives. Summit blunt.

SEED-VESSEL. Capfule leathery, and woolly, four cells, four valves.

Seeds four, folitary, and nearly round.

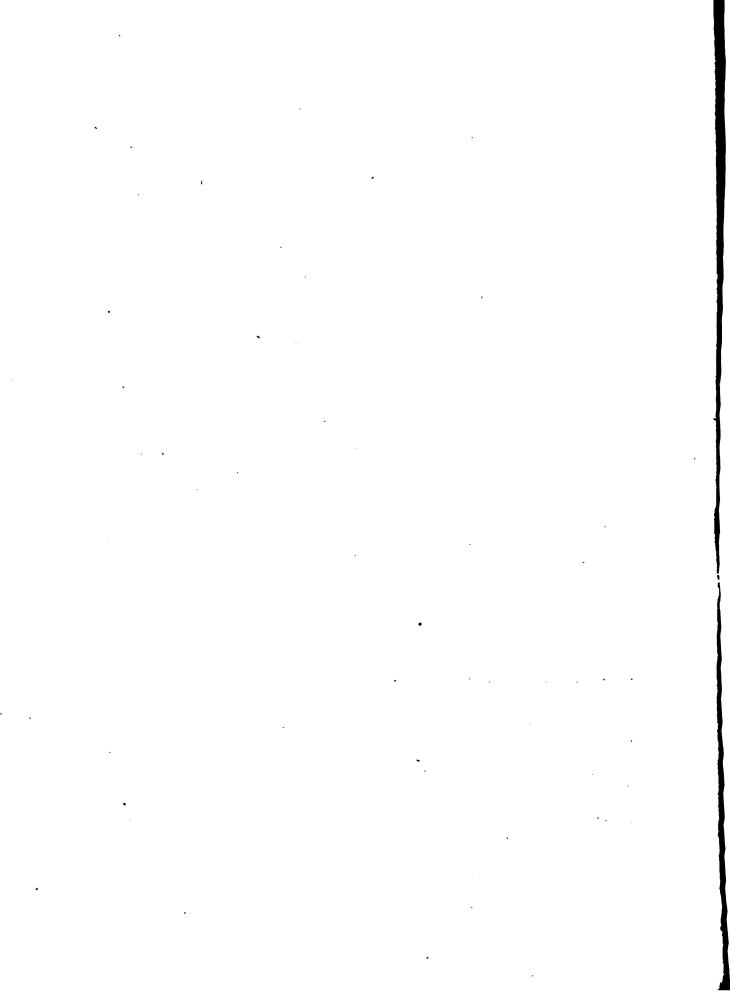
SPECIFIC CHARACTER.

Correa, foliis fubrotundis, fupra tomentofis, fubtus lanigeris; floribus terminalibus, quaternis, albidis. Correa, with leaves nearly round, downy on the upper furface, woolly on the under furface; flowers terminate the branches by fours, and are white.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. The Chives, and Pointal.
- 3. A Thread, and Tip, (magnified.)
- 4. The Shaft and Summit, (magnified.)

THE Correa is a native of Port Jackson, in New Holland, and commonly termed a Botany-bay plant: it was first raised in the year 1793, from seeds which were given by Sir Joseph Banks, Bart. to J. Vere, Esq. of Kensington-gore, and from a plant in whose collection our figure was taken. It receives its generic title from Mr. Joseph Correa de Serra, a native of Portugal; a gentleman of very distinguished talents as a man of science in general, and botany in particular. Of this genus there are as yet but few species discovered; the Alba grows to a shrub of the height of four or five feet, woody and tough; both stem and leaves are covered with a thick slannelly substance, particularly the under side of the leaves, which gives the whole plant a whitish appearance. It continues to flower through the months of April, May, and June; may be propagated easily by cuttings, should be kept as a hardy greenhouse plant, and thrives best in peat earth.



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ladiolus versicolor.

PLATE XIX.

GLADIOLUS VERSICOLOR.

Changeable Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GBNERIC CHARACTER.

CALYX. Spathæ bivalves.

COROLLA, sexpartita, ringens. Petala oblonga, omnia unguibus in tubum connata.

STAMINA. Filamenta tria, subulata, divisuris alternis petalorum inserta. Antheræ oblongæ.

Pistillum. Germen inferum. Stylus fimplex, longitudine staminum. Stigma trifidum concavum.

Pericarpium. Capfula oblonga, obtufa, trilocularis, trivalvis.

SEMINA plura, fubrotunda.

EMPALEMENT. Sheath two valves.

BLOSSOM, of fix divisions, and gaping. Petals oblong, having their claws formed into a tube

Chives. Three awl-shaped threads, fixed into the alternate divisions of the petals. Tips oblong.

POINTAL. Seed-bud beneath. Shaft fimple, the length of the chives. Summit cut into three, and concave.

SEED-VESSEL. Capfule oblong, blunt-ended, three cells, three valves.

SEEDs many, nearly round.

SPECIFIC CHARACTER.

Gladiolus, foliis lineari-cruciatis; floribus maximis, verficoloribus.

Gladiolus, with linear cross shaped leaves; flowers very large, and changeable.

REPERENCE TO THE PLATE.

- 1. The two Sheaths of the Empalement.
- 2. The Pointal, and Seed-bud; one of the divisions of the Summit magnified.
- 3. A ripe Seed, natural fize, in its tunic.

That colour bears the character given it by Sir Isaac Newton, our present subject (as did the prism) adds another proof. The Gladiolus versicolor might, like the camelion, equally be a subject of contention, to those who have seen its blossom at different periods of the same day; for, strange to tell it is brown in the morning, and continues to change from that colour till it becomes light blue by night. During the night it regains its pristine colour; and this change is effected diurnally, whilst the flower is in its vigour; but upon the decay, the change is less powerful, gradually fixing in a dark brown; which, however, does not take place in less than nine or ten days. This is the only flower, we have ever noticed, to regain the colour that has once forsook it. A drawing was began about ten o'clock in the morning, but before it was sinished the plant was so totally altered in colour that there was an absolute necessity for taking a second day to complete it. The bulbs of this plant were sent from the Cape of Good Hope by J. Pringle, Esq. of Madeira, in 1794, amongst many others, to Messirs. Lee and Kennedy, of Hammersmith, where the drawing was made. It slowers about the month of June; is increased by the root or seed; and thrives best in peat earth.

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PLATE XX.

ECHIUM GRANDIFLORUM.

Large-flowered Viper's Bugloss.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quinquepartitum, erectum perfistens; laciniis subulatis erectis.

COROLLA. Monopetala, campanulata. Tubus breviffimus. Limbus erectus, fensim ampliatus, quinquesidus obtusus; laciniis sæpius inæqualibus; superioribus duabus longioribus, infimis minoribus, acutis, resexis. Faux pervia.

STAMINA. Filamenta quinque, subulata, longitudine corollæ, declinata, inæqualia. Antheræ oblongæ, incumbentes.

Pistillum. Germina quatuor. Stylus filiformis, longitudine flaminum. Stigma obtufum, bifidum.

Pericarrium nullum. Calyx rigidior, in finu femina fovens.

Semina quatuor, fubrotunda, oblique acumenata.

EMPALEMENT. Cup with five divisions, upright, permanent; fegments awl-shaped, upright.

BLOSSOM. One petal, bell-shaped. Tube very short. Border gradually widening, with five clefts, blunt. Segments oftenest unequal, the two upper ones the longest; the lower ones smaller, sharp, and reslexed. The mouth open.

Chives. Five threads, awl-shaped, the length of the blossom, declined, and unequal. Tips oblong, fixed sideways to the threads.

POINTAL. Seed-buds four. Shaft thread-shaped, the length of the chives. Summit blunt, and two-cleft.

Seed-vessel none. The cup growing more harsh, contains the seeds.

SEEDS four, roundish, obliquely tapering.

SPECIFIC CHARACTER.

Echium, foliis nitidis, lanceolatis, hispidis; caule fruticoso; corollis maximis, æqualibus, rubris.

Viper's Bugloss, with shining, lance-shaped, hairy leaves; stem shrubby; blossoms very large, equal, and red.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Blossom cut open, to expose the situation of the Chives.
- 3. The Shaft and its Summit magnified.
- 4. A ripe seed.

THE Echium Grandiflorum is a native of the Cape of Good Hope, was fent from thence by Mr. F. Masson to the Royal Gardens at Kew, about the year 1791. The superior beauty of this species to the rest of its congenors makes it considered as a valuable greenhouse plant, although its intrinsic merit is sufficient to ensure it that character; the rich green of its soliage, contrasted to the colour of the blossoms, gives to each a singular brilliancy. It is rather a tender greenhouse plant, grows about two feet high, and becomes naked at the lower part of the stem; is with difficulty propagated by cuttings, seldom persecting its seeds; thrives best in rich earth, and slowers in April and May. The drawing was made from a plant in the collection of the Marquis of Blandford, Bill-hill, Berks.

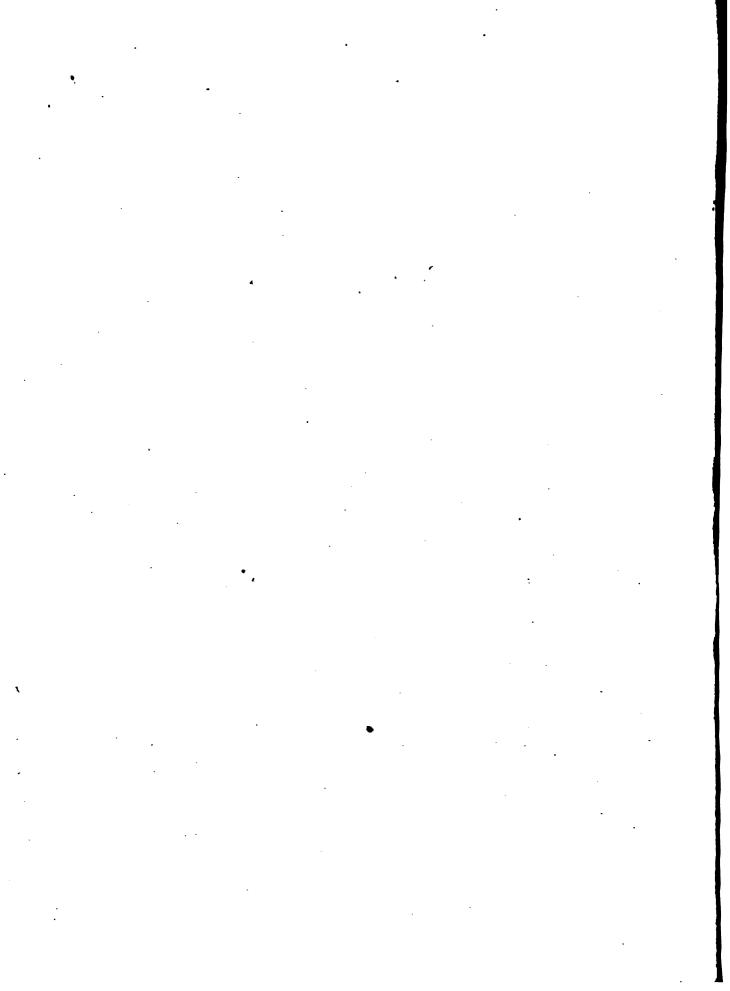






PLATE XXI. VEREIA CRENATA.

Scolloped-leaf Vereia.

CLASS VIII. ORDER IV.

OCTANDRIA TETRAGYNIA. Eight Chives. Four Pointals.

GENERIC CHARACTER.

CALYX. Perianthium tetraphyllum, foliolis lanceolatis, concavis, erectis, acutis, perfiftentibus.

COROLLA monopetala, ventricosa; limbus patens, revolutus quadripartitus; laciniis ovatis, acuminatis.

Nectararia quatuor; fingulum fquamula debilia, minima, fingulo germini ad bafin extrorfum inferta.

STAMINA. Filamenta octo, brevia, quorum quatuor medio, quatuor vero ad bafin corollæ adnatæ. Antheræ fubrotundæ fimplices.

PISTILLUM. Germina quatuor, oblonga, definentia in flylos subulatos. Stigmata obtusa.

Pericarpium. Capfulæ quatuor, ovatæ acuminatæ, recæ, trigonæ, longitudinaliter futura introrfum dehifcentes.

SEMINA plurima minima.

EMPALEMENT. Cup four leaved, which are lance-shaped, concave, upright, sharp-pointed, and permanent.

BLOSSOM of one leaf, big bellied; border fpreading, rolled back, and divided into four egg-shaped, pointed segments.

Honey-cups four, each confifting of a small slight scale, fixed on the outside the base of each seed-bud.

CHIVES. Eight fhort threads, four of which are fixed to the middle, and four to the base of the blossom. Tips nearly round, and simple.

POINTAL. Four feed-buds, oblong, ending in awl-shaped shafts. Summits blunt.

SEED-VESSEL. Four capfules, egg-shaped, tapering, upright and three sided, opening inwards along the seam.

SEEDS many, very fmall.

SPECIFIC CHARACTER.

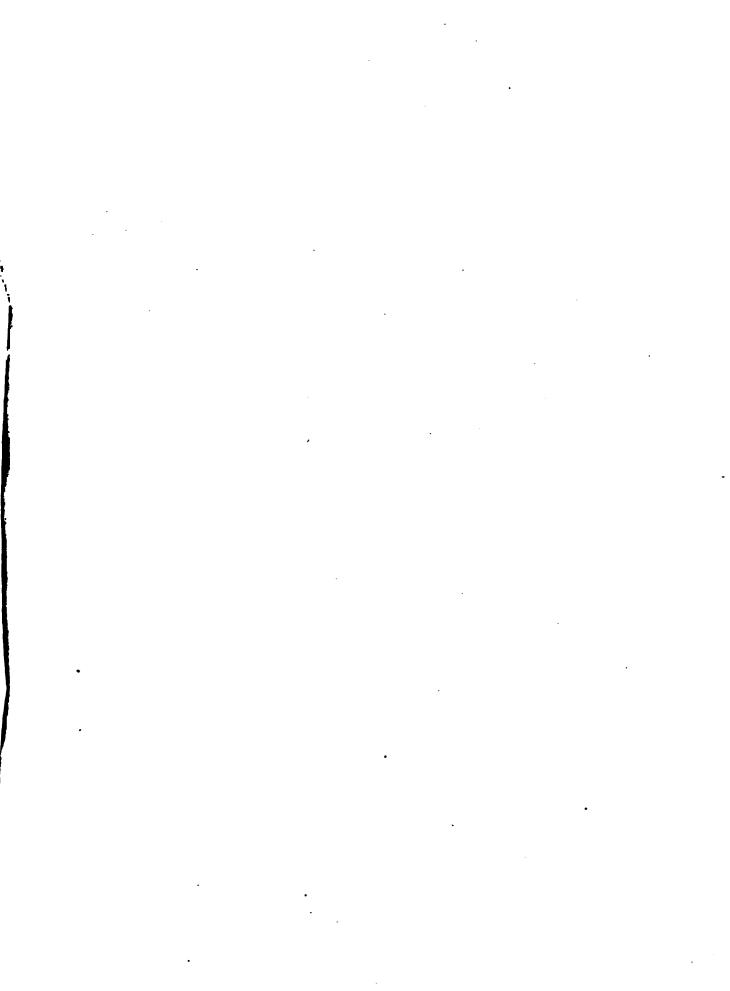
Vereia, foliis oppositis, crenatis, patentibus; racemis longissimis laxis; sloribus luteis.

Vereia, with opposite, scolloped, spreading leaves; very long loose spikes, and yellow flowers.

REFERENCE TO THE PLATE.

- 1. The Empalement, (natural fize.)
- 2. A Bloffom cut open to shew the fituation of the Chives.
- 3. The Seed-veffel, Shafts, and Summits, with the scales of the Honey-cups, as they stand in the blossom, (magnified.)
- 4. One Capfule of the Seed-veffel detached.

This genus of Plants must class with Linnæus's natural order of Succulents, nearly approaching Crassula in habit; but as the Sexual System is the basis of our theory, we cannot admit it under that or any other yet described genus; we have therefore named it after James Vere, Esq. long and well known for his extended and liberal patronage to the professors and cultivators of the science; in whose beautiful and select collection at Kensington Gore, the present species, has for the first time, slowered in this kingdom. Mr. Anderson the gardener informs us, that this plant is a native of Sierra Leone; from whence it was sent to England, by Professor Eld. Estelius, in the year 1793; that he has treated it as a tender hot-house plant, keeping it constantly in the tan bed, by which means he has made it flower; but from every appearance of the plant, we should be led to think the common treatment of hot-house Succulents would answer for this. It is easily propagated by cuttings; grows to the height of three or four feet, having when in flower the appearance of a middle fized shrub; blows in the winter months, and thrives best in rich mould.





Gacdenia calendulacea .

PLATE XXII.

GOODENIA CALENDULACEA.

Cape Marygold-leaved Goodenia.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quadrifidum, superum, persistens.

COROLLA monopetala, fupra longitudinaliter fiffa, genitalia exferens; limbo quinquefido, fecundo.

STAMINA. Filamenta quinque, receptaculo inferta. Antheræ lineares.

PISTILLUM. Germen inferum. Stylus fimplex. Stigma precolatum, ciliatum.

Pericarpium. Capíula oblonga, bilocularis, bivalvis; diffepimento parallelo.

SEMINA plura, scabrida.

EMPALEMENT. Cup four-cleft, above, and remaining.

BLOSSOM of one leaf, cleft longitudinally on the upper fide, exposing the organs of fructification; border five-cleft, leaning one way.

Chives. Five threads fixed into the receptacle.

Tips linear.

POINTAL. Seed-bud beneath. Shaft fimple. Summit pitcher-shaped, and fringed.

Seed-vessel. Capfule oblong, with two cells, and two valves; partition parallel to the valves.

SEEDs many and rough.

SPECIFIC CHARACTER.

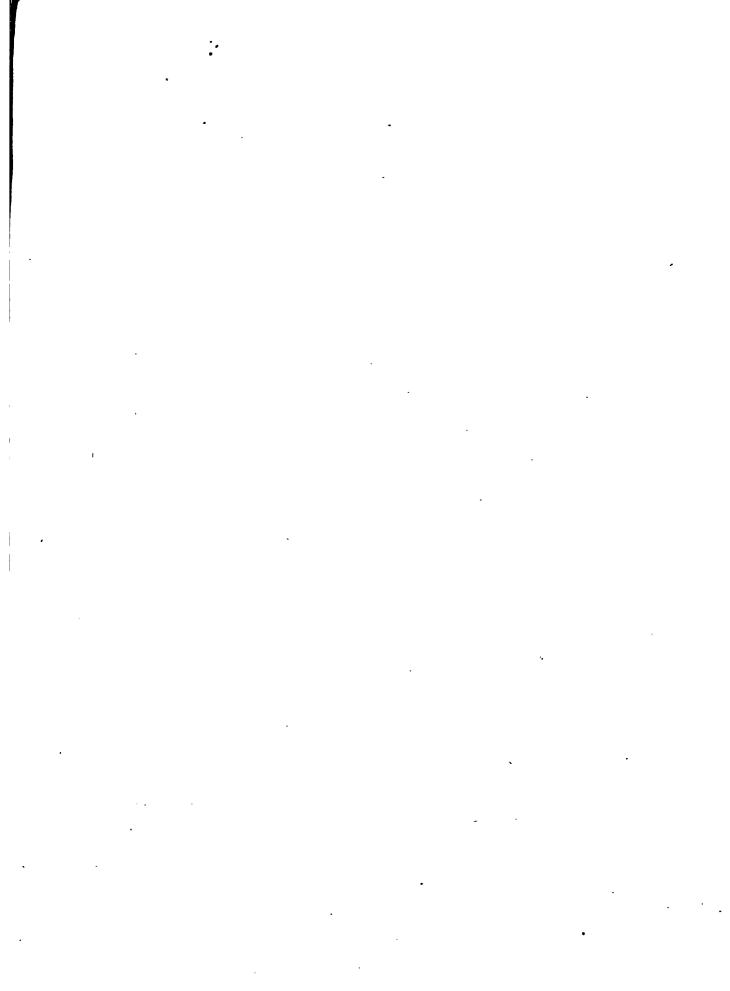
Goodenia, foliis obovatis, crassis, scabridis; storibus axilaribus, cæruleis.

Goodenia with inverfely egg-shaped, thick rough leaves; flowers sitting close to the stem, and blue.

REFERENCE TO THE PLATE.

- 1. A Flower with all its parts complete.
- 2. A Bloffom without the organs of fructification.
- 3. The Chives, Pointal, and Seed-bud (magnified).

The Goodenias are all natives of New Holland, and received their generic name of Dr. J. E. Smith, Prefident of the Linnæan Society; in honour of the Rev. Dr. Goodenough, whose valuable differtation on the British species of Carex, does him the highest honour, as a botanist. The species of this genus (as yet discovered) are ten, from which we may infer that they are numerous; those only yet introduced to Britain are, the lævigata, ovata, and the present species; the others are described by the President, in the second volume of the Linnæan Transactions. This plant, though not to be ranked amongst the handsomest productions of that country, so replete with novelty, is yet possessed amongst the handsomest productions of that country, so replete with novelty, is yet possessed of sufficient merit to give it a place in our collections of greenhouse plants, slowering about the month of August; delighting most in an airy situation, and light soil. It is easily propagated by cuttings. Our sigure was taken from a plant which slowered at the Hammersmith nursery, in 1797; where it had been raised from seeds, communicated by Colonel Paterson, then commanding at Port Jackson; to whose assistances in collecting seeds, &c. the cabinets and collections of our natural historians are so very much indebted.



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Ixia capitalu

PLATE XXIII.

IXIA CAPITATA. Var. ovata.

Bunch-flowering Ixia. Var. Egg-shaped purple Petals.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6 petala, patens, sequalis. Stigmata 3, erectiusculo-patula.

BLOSSOM fix petals, spreading equal. Summits three, nearly upright, spreading. See Ixia reflexa, Plate XIV.

SPECIFIC CHARACTER.

Ixia, foliis radicalibus, enfiformibus; floribus capitatis, confertis, purpureis, petalis bafi obfcuris. Ixia with leaves growing from the root, and fword-shaped; blossoms in close bunches, purple, and dark at the base.

REFERENCE TO THE PLATE.

- 1. The two sheaths of the Empalement.
- 2. A flower cut open, to shew the insertion of Chives.
- 3. The Chives as attached to the tubular part of the bloffom, the border cut off (magnified).
- 4. The Shaft, Summits, and Seed-bud (magnified).

This fine species of Ixia, a native of the Cape of Good Hope, was introduced to our collections about the year 1795, by Messrs. Lee and Kennedy, nurserymen; they having raised it from seeds received by them, from the Royal Gardens at Vienna; is certainly amongst the tenderest of its tribe: the root, being extremely subject to injury by wet, it should be dried as soon as it has done slowering. It is one of the earliest Ixias in bloom, being in high persection about the middle of April; is increased but slowly by the root, thriving best in very sandy peat, or sand only. The sigure here given was drawn from a plant which slowered at the nursery, Hammersmith, in 1798, for the first time.

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PLATE XXIV. CINERARIA AURITA.

Two-coloured-leaved Cineraria.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. Communis, fimplex; polyphyllus; foliolis æqualibus.

Compofita, radiata. COROLLA. Corollulæ hermaphroditæ, æquales; numerofæ, in disco. Femineæ ligulatæ, numero foliorum calycis in radio.

> Propria hermaphroditi, infundibuliformis; limbo quinquefido, erecto.

> Feminea ligulata, lanceolata, apice denticu-

STAMINA. Filamenta quinque, filiformia brevia. Antheræ cylindracea, tubulosa, apice quinquefida.

PISTILLUM, hermaphroditis. Germen oblongum. Stylus filiformis, longitudine staminum. Stigmata duo erectiuscula.

Femineis: Germen oblongum. Stylus filiformis, brevis. Stigmata duo, oblonga, obtufiuscula, revoluta.

Pericarrium nullum. Calyx immutatus. Semina hermaphroditis folitaria, linearia, quadrangula. Pappus pilofus, copiofus.

RECEPTACULUM nudum, planiusculum.

Cineraria, foliis cordatis, dentatis, pilofis, subtus purpurascentibus; petiolis auritis: floribus purpureis.

EMPALEMENT. Common, fimple; of many leaves; fmall leaves equal.

BLOSSOM. Compound, radiate. Florets with chives and pointals equal; numerous in the centre. Florets with only pointals ligulate; equal in number to the leaves in the circumference of the empalement. Individuals with chives and pointals funnel. shaped; border five cleft, upright. Individuals with pointals only, ligulate, lance-shaped; toothed at the point.

CHIVES. Five threads, thread-shaped and short. Tips forming a hollow cylinder, with five clefts at the top.

POINTAL of florets with chives and pointals. Seed-bud oblong. Shaft thread-shaped, the length of the chives. Summits two, a little upright.

Of florets with pointals only. Seed bud ob. long. Shaft thread-shaped, and short. Summits two, oblong, rather blunt, and rolled back.

SEED-VESSEL none. Cup not changing. SEEDs of florets with chives and pointals, folitary, linear and four-fided. Feather, hairy, abundant.

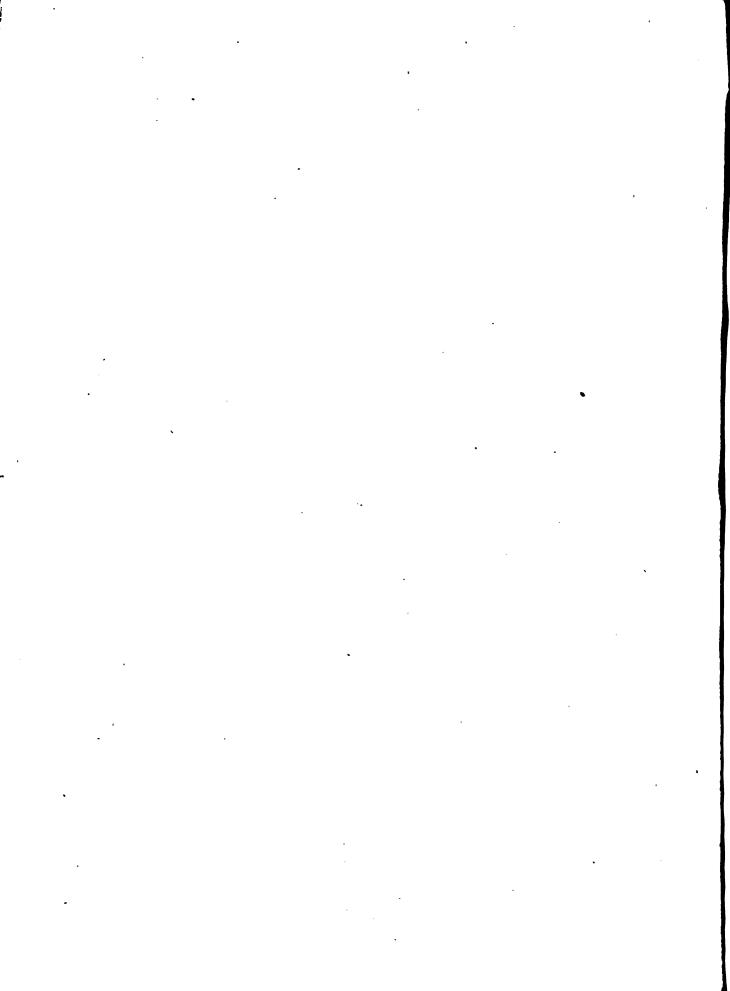
RECEPTACLE naked, rather flat.

Cineraria with heart-shaped, indented, hairy leaves, purple underneath; the footftalks having lobes: the flowers purple.

REFERENCE TO THE PLATE.

- 1. The Empalement (natural fize).
- 2. A floret of the ray (magnified).
- 3. A floret of the disk (magnified).
- 4. The Chives, Pointal, and Seed-bud of a floret of the disk (magnified).

In the Sert. Anglic. of Monf. L'Heritier, this species of Cineraria has been described and figured under the specific character of Cruenta, from the botanic garden at Kew; where, according to the catalogue, it was first introduced by Mr. F. Masson, from the Canary Islands, about 1777; and by which specific it has hitherto been titled: but from what appearance or part of the plant, he could denominate it bloody, will not be easy to determine; from our idea of colour, he might as well have named it blue. Finding, therefore, a specific character certainly more fixed in the leaf, we have taken the liberty of altering Cruenta to Aurita; though that would not have been done, (as nothing is more contrary to our fentiments, than altering any published name) if there had been any glimpse of affinity to the plant in that title. This is unquestionably the handsomest species of Cineraria yet known, growing to the height of near three feet if encouraged. The specimen from which this figure was taken, and which was fent last March to the author, by Mr. James Colville, King's road, Chelfea, had attained that fize. By night it is extremely fragrant, continuing its bloffoms from the month of February, till August; seeding abundantly, by which it may be propagated, producing many varieties; or by the fuckers which are thrown up from the roots; thriving best in light mould or peat.



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PLATE XXV.

CAMELLIA JAPONICA. Var. Flore albo pleno.

Double white Camellia.

CLASS XVI. ORDER V.

MONODELPHIA POLYANDRIA. Threads united. Many Chives.

ESSENTIAL GENERIC CHARACTER.

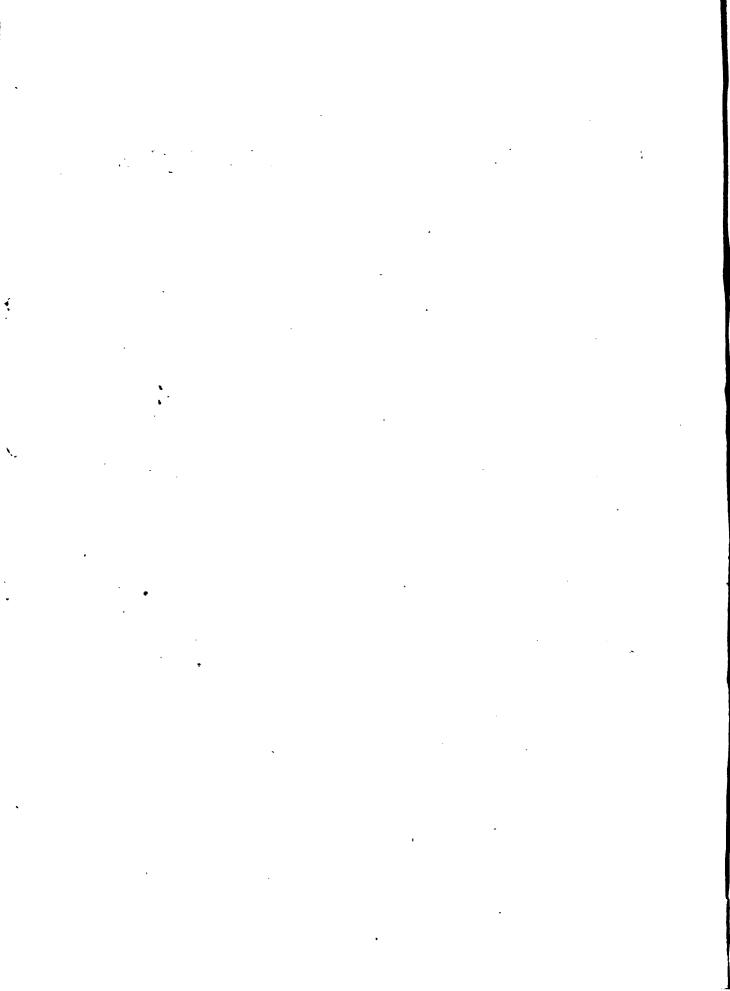
CALYX imbricatus, polyphyllus: foliolis interioribus majoribus.

EMPALBMENT tiled, of many leaves: the inner leaves the largeft.

SPECIFIC CHARACTER OF VAR.

Camellia floribus amplissimis, plenis albidis. | | Camellia with large double white flowers.

THOUGH it may be confidered by some, as deviating from the botanical rule we prescribed to ourselves, at the outfet of this work, not to figure any flower, but what could be systematically ascertained; double flowers, &c. having loft those constituent characters necessary to the Sexual System; yet having seen this most delightful plant in bloom last year, the temptation was too powerful to be refisted, for giving a figure of it in the Botanist's Repository. This fine variety of the Camellia, was first imported from China about the year 1793, by Captain Connor of the Carnatic East-indiaman, for the gardens of the late I. Slater, Esq. a gentleman of most indefatigable spirit, for the introduction of new plants to this kingdom; indeed, it is to him we owe most of the plants received from China within these few years; he having procured a catalogue to be printed of all the described Chinese plants in that language, with the descriptions translated, and by various hands transmitted it to that country. The finest plants in this kingdom, of the double white Camellia, are now in the collection of Sir Joseph Banks, Bart. P. R. S. This, like the others of this genus, we may confider of sufficient hardiness to resist our winters; being a native of the Japanese isles, where, as well as in China, it was feen by Thunberg. As yet (from its scarcity) that cannot be ascertained; but from the easy method by which it is propagated by cuttings, we are in hopes it foon may. It is at present cultivated as a hot-house plant, where certainly it will be always seen in the greatest perfection; the flowers being of fo delicate and brilliant a white, their beauty is eafily destroyed, even by watering. Flowers in the autumnal months, and thrives best in rich loam.



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Grafsula odorati fuma.

PLATE XXVI.

CRASSULA ODORATISSIMA.

Sweet-scented Crassula.

ORDER V. CLASS V.

PENTANDRIA PENTAGYNIA. Five Chives. Five Pointals.

GENERIC CHARACTER.

- CALYX. Perianthium pentaphyllum; foliolis lanceolatis, canaliculato-concavis, erectis, acutis, conniventibus in tubum, persistentibus.
- Petala quinque, unguibus longis, linearibus, reclis, conniventibus, reflexopatentibus.
 - Nectaria quinque; fingulum squamula minima, emarginata bafi germinis extror-
- STAMINA. Filamenta quinque, subulata, longitudine tubi, unguibus corollæ inserta. Antheræ fimplices.
- PISTILLUM. Germina quinque, oblonga, acuminata, definentia in stylos subulatos, longitudine staminum. Stigmata obtusa.
- Capfulæ quinque, oblongæ, acuminatæ, rectæ, compressæ, longitudinaliter introrfum dehiscentes.

SEMINA plura, parva.

EMPALEMENT. Cup of five leaves; the small leaves are lance-shaped, concave and channelled, upright, fharp, formed into a tube, and remaining.

BLOSSOM. Petals five, claws long, linear, upright, joined together, bent back, and fpreading.

> Honey-cups five, each confifting of a small scale notched at the end, and fixed on the outfide the base of each seed-bud.

- CHIVES. Five threads, awl-shaped, the length of the tube, fixed into the claws of the bloffom. Tips fimple.
- POINTAL. Seed-buds five, oblong, pointed, ending in awl-shaped shafts, the length of the chives. Summits blunt.
- SEED-VESSEL. Five capfules, oblong, pointed, upright, pressed together, and opening inwards along the seam.

SEEDS, many, fmall.

Craffula foliis oppositis, amplexicaulibus, ciliatis, linearibus; floribus capitatis, odoratiffimis, luteis.

SPECIFIC CHARACTER.

Crassula with opposite leaves that embrace the stem, fringed and linear; the flowers grow in bunches, are fweet-fcented and yellow.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Bloffom cut open to shew the insertion of the threads.
- 3. One Petal of the bloffom.
- 4. The five Pointals as they stand in the blossom, with their honey-cups attached to the bottom of the Seed-buds.
- 5. One Pointal (magnified).

THE Craffula Odoratiffima is a native of the Cape of Good Hope, was introduced to our gardens about the year 1794, but did not flower till 1796. The scent of this plant at night is so very powerful, that by many it may be deemed almost offensive, though by others it is considered as most agreeable; the flavour is nearly affined to the tuberose. This is not a very shewy plant, growing about a foot high, and flowers from March, till May or June. It is most easily propagated by cuttings, lives in the common greenhouse with very little care, and in almost any fort of earth. This figure was taken at Meffrs. Lee and Kennedy's, nurserymen, Hammersmith, where the plant was first raised.

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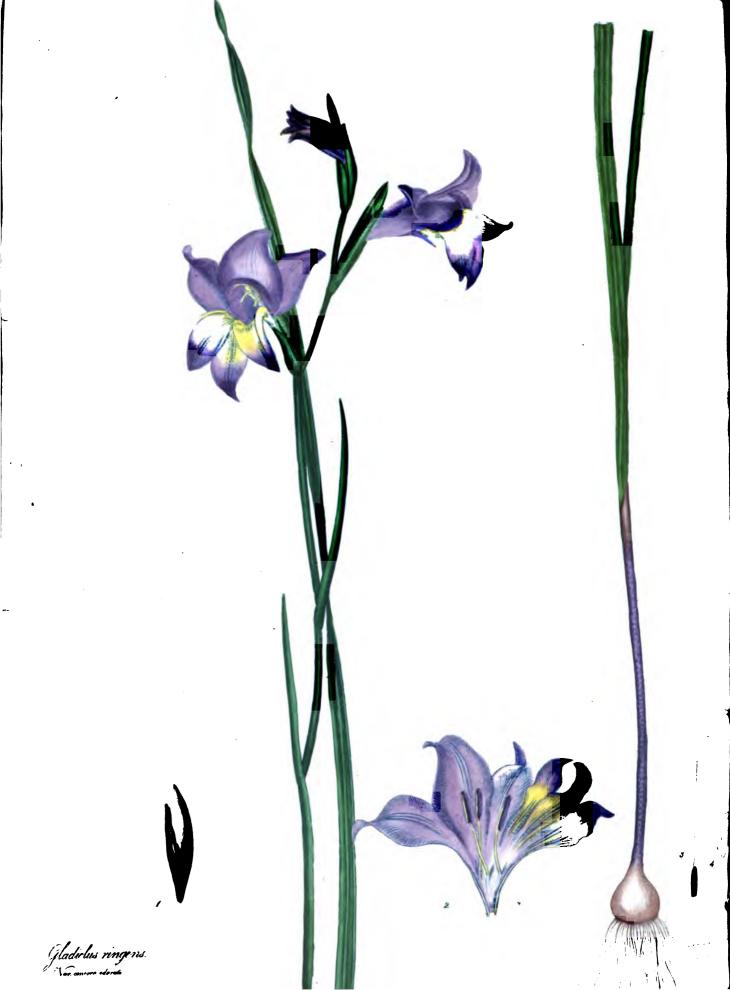


PLATE XXVII.

GLADIOLUS RINGENS. Var. cinereo odorato.

Gaping Ash-coloured sweet Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, ringens. STAMINA adfeendentia.

BLOSSOM fix divisions, gaping.
CHIVES ascending.
See Plate XI

SPECIFIC CHARACTER.

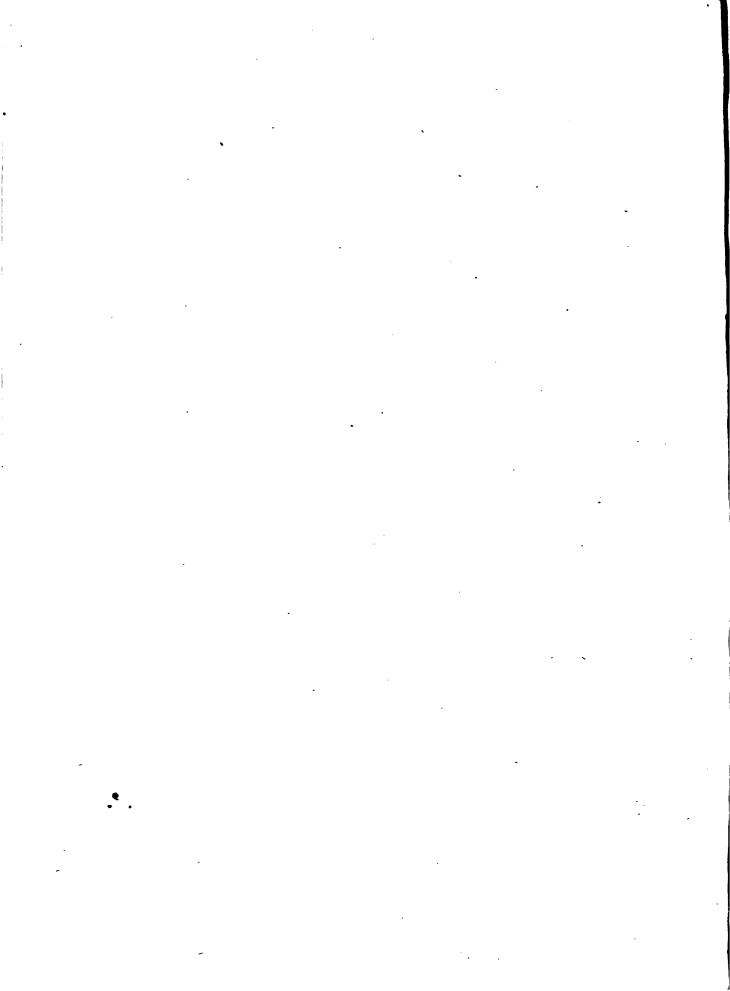
Gladiolus foliis linearibus, costatis; floribus ringentibus, cineriis, odoratissimis.

Gladiolus with linear, ribbed leaves; the bloffoms gaping, ash-coloured, and very sweetscented.

REFERENCE TO THE PLATE.

- 1. The two sheaths of the Empalement.
- 2. A Blossom cut open to expose the insertion of the Chives.
- 3. The Pointal (one Summit magnified).
- 4. A Seed in its coat.

This most desirable Gladiolus, is not a perfect novelty in the greenhouse; although extremely scarce, it has been introduced to us constantly from the Cape of Good Hope, but from its great delicacy has been repeatedly lost. The plants now in England, have been imported from Holland, from the collection of Messirs. Voorhelm and Co. who about the year 1793, purchased the largest collection ever formed at the Cape, from a Frenchman who had been many years resident there. The Gladiolus ringens about mid-day has the flavour of violets so powerfully, that a single plant is sufficient to scent a whole greenhouse. It is with difficulty preserved from rotting at the root; therefore should be grown in very sandy peat, and should be exposed to dry as soon as the flower is gone. Is propagated by the root, or by seed, which may be procured by great care not to over-water the bulb after flowering; but herein there is great danger.



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PLATE XXVIII.

GERANIUM ELEGANS.

Round-leaved Geranium.

CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

Monogyna. Stigmata 5. Fructus rostratus, 5-coccus.

One Pointae. Five Summits. Fruit furnished with long awns, 5 dry berries.

See Geranium grandiflorum, Plate XII.

SPECIFIC CHARACTER.

Geranium pedunculis multifloris; calycibus monophyllis, foliis orbiculatis, ferratis rigidis, petiolis longiffimis; caule herbaceo. Geranium, the fruit-stalks supporting many flowers; cups of one leaf; the leaves round, fawed, and harsh, with very long foot-stalks; stem herbaceous.

REFERENCE TO THE PLATE.

- 1. The Empalement cut open, to shew its tubular shape to its base.
- 2. The Chives, and Pointal, natural fize.
- 3. The Pointal, magnified.

This truly elegant species of Geranium was introduced to us from the Cape of Good Hope, in the year 1795; being raised from seeds, received from thence, by Messrs. Lee and Kennedy, in whose collection it slowered for the first time this year, about the latter end of May, and from which specimen this sigure was taken. It is one of those that have in general seven sertile tips, and, therefore, must be placed under Mr. L'Heritier's genus Pelargonium, by those who follow his new arrangement. It is a hardy plant, and requires only a common greenhouse for its protection, where it will seed; which seems to be the readiest mode of propagating it, as it produces but very few branches; thriving best in rich earth.

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Isia spienta.

PLATE XXIX.

IXIA SPICATA. Var. viridi nigra.

Sea-green spiked Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6 petala, patens, sequalis. STIGMATA 3, erectinsculo-patula.

Blossom fix petals, fpreading, equal.

Summits three, nearly upright, fpreading.

See IXIA REFLEXA, Plate XIV.

SPECIFIC CHARACTER.

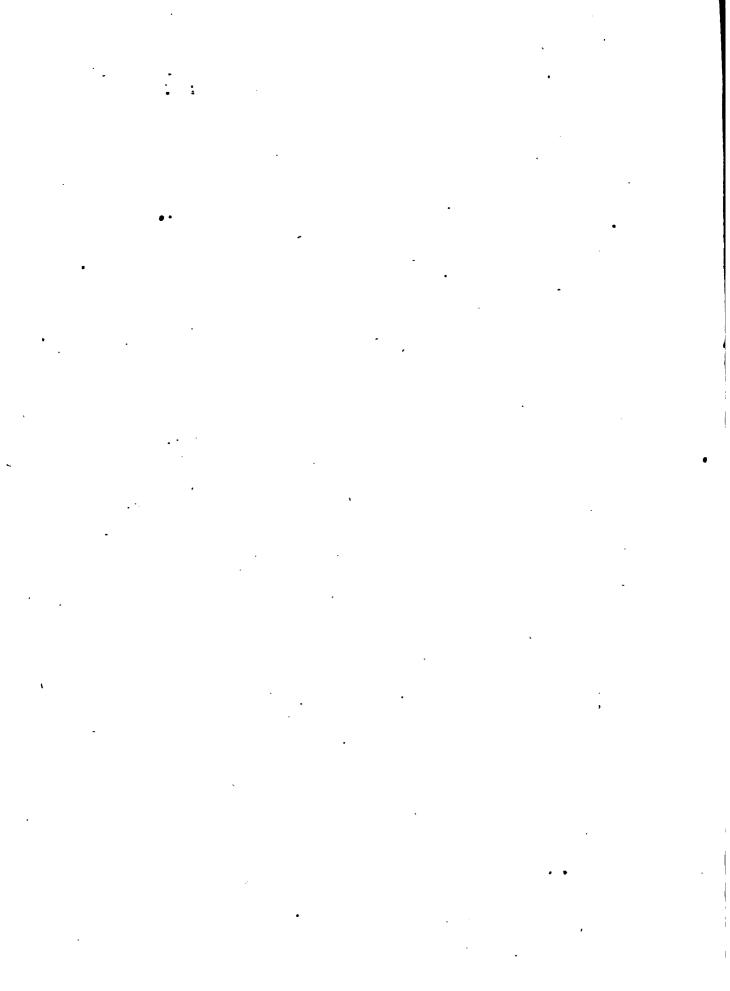
Ixia foliis linearibus, coflatis; corolla viridi, petalis bafi obscuris; spicis longistimis.

Ixia with linear, ribbed leaves; green bloffom, the base of the petals dark; spikes very long.

REFERENCE TO THE PLATE.

- 1. The two sheaths of the Empalement.
- 2. A Bloffom cut open, to shew its tubular character, and the insertion of the Chives at the month.
- 3. The Pointal complete, one of its Summits magnified.

The fingularity of colour exhibited in this very fine species of Ixia, the extraordinary length of the spikes, the flowers of which are mostly all expanded at the same time; and which grow sometimes to the length of a foot, or more; will certainly entitle it to a place in every collection of exotics. We are indebted to the Hollanders for this plant, as they first introduced it from the Cape; and it is from them we received it but a few years since. It is amongst the hardiest, and easiest propagated of this genus; requiring a small degree of heat when near blowing, to make the flowers expand with lustre; thriving best in peat earth; propagating itself by the bulb; and flowering during the months of May and June.



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PLATE XXX.

VACCINIUM ARCTOSTAPHYLLUS.

Madeira Whortle-berry.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium minimum, fuperum, perfiftens.

COROLLA. Monopetala, campanulata, quadrifida; laciniis revolutis.

STAMINA. Filamenta octo, fimplicia. Antheræ bicornes, dorfo ariftis duabus patentibus inftructæ, apice dehiscentes.

PISTILLUM. Germen inferum. Stylus fimplex, framinibus longior. Stigma obtufum.

Pericarpium. Bacca globosa, umbilicata, quadrilocularis.

SEMINA pauca, parva.

EMPALEMENT. Cup very fmall, above, and permanent.

Blossom. One petal, bell-fhaped, four-cleft; fegments rolled back.

Chives. Eight threads, fimple. Tips with two horns, and furnished with two spreading awns at the back, opening at the points.

POINTAL. Seed-bud beneath. Shaft fimple, longer than the chives. Summit blunt.

SEED-VESSEL. A globular berry, with a hollow dimple, and four cells.

SEEDS few, and imall.

SPECIFIC CHARACTER.

Vaccinium, floribus racemofis; foliis crenulatis, ovatis, acutis; caule arboreo.

Whortle-berry, with flowers growing in bunches; leaves slightly scollopped, egg-shaped, and pointed; stem woody.

REFERENCE TO THE PLATE.

- 1. The Empalement, Pointal, and Chives; the bloffom removed.
- 2. A Chive (magnified).
- 3. The Shaft, and its Summit (magnified).
- 4. A ripe Berry (natural fize).

Numerous are the difficulties which occur in arranging plants according to any yet invented system; and although the sexual fails in the fewest instances, yet that is sometimes the case. The plant before us, although in habit, fruit, &c. feemingly perfectly allied to Vaccinium, and, from which characters, it has been placed under that genus, yet we doubt whether if Linnæus had examined the flower himfelf, (as he has accepted it under the name it here bears, and we have no doubt of its being the plant intended;) he would not have classed it in Octandria; for certainly it has in every instance ten chives, with the border of the bloffom of five fegments; the threads attached to the bloffom. But, as it is the professed intention of this work as little as possible to confuse, by the introduction of new names for plants already known by established, and generally accepted ones; though erroneous from incorrecens, or otherwise, in the author who first published them; we shall attempt an alteration but rarely, and that cautiously, or for very glaring reasons; being thoroughly convinced of the difficulty of retaining only one name for each plant. The Vaccinium Arctoftaphyllus is a native of the island of Madeira, where it grows to a confiderable height: it has not been many years cultivated in our gardens; having been introduced to us first by Mr. F. Masson about the year 1786. The winters in common of this climate are too fevere for it, therefore should be protected, although it will survive a mild one: it is best preserved in a pot, and kept as a greenhouse plant, where it is very ornamental; flowering about the months of July and August; thriving best in light mould, or peat; and is propagated by cuttings, or the feed, which it produces in abundance.

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PLATE XXXI. BORBONIA CORDATA.

Heart-shape leaved Borbonia.

CLASS XVII. ORDER IV.

DIADELPHIA DECANDRIA. Threads in two sets. Ten Chives.

GENERIC CHARACTER.

CALTE. Perianthium monophyllum, quinquefidum, turbinatum, corolla dimidio brevius; laciniis lanceolatis, acuminatis, subæqualibus.

COROLLA pentapetala papilionacea.

Vexillum reflexum, obtusum, unque calycis longitudine.

Ala semicordata, vexillo paulo brevi-

Carina dipetala, lunulata, obtusa.

STAMINA. Filamenta decem, coalita in cylindrum, fuperne longitudinaliter dehiscentem, apicibus affurgentia. Antheræ parvæ.

PISTILLUM. Germen fubulatum. Stylus brevifimus, adfeendens. Stigma obtufum, emarginatum.

Pericarpium. Legumen fubrotundum, acuminatum, uniloculare, fpina mucronatum.

SEMINA reniformia.

EMPALEMENT. Cup one leaf, cut into five fegments, turban-thaped, shorter by half than the blossom; segments lance-shaped, pointed, nearly of the same length.

BLOSSOM of five leaves, butterfly-shaped.

Standard bent back, blunt, the claw the length of the cup.

Wings half heart-shaped, a little shorter than the standard.

Keel of two leaves, half moon-shaped, and

CHIVES. Threads ten, joined in a cylinder, fplitting at the upper fide, turned up at the ends. Tips small.

POINTAL. Seed-bud awl-shaped. Shaft short, turned up at the end. Summit blunt, and bordered.

SEED-VESSEL. Shell roundish, pointed, of one cell, and pointed with a spine.

SEEDS kidney-shaped.

SPECIFIC CHARACTER.

Borbonia foliis cordatis, multinerviis, integerrimis. Borbonia with heart-shaped leaves, many-nerved, and very entire.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. The Standard, or upper petal of the Blossom.
- 3. A Wing, or fide petal of the Bloffom.
- 4. The Keel, or lower petals of the Bloffom.
- 5. The Pointal and Chives, natural fize.
- 6. The Seed-veffel, attached to the Empalement.

THE Borbonia cordata, with its various fynonyms, may be found in the fecond volume of Linnæus's Species Plantarum, page 994, from whence our specific character is copied. This plant, as well as most of the genus, are subject to lose their leaves from the lower part of the stem, which gives it rather a naked appearance when not in flower; but that is amply compensated by the very handsome appearance of its magnificent bunch of yellow blossoms. It grows to the height of three or four feet, producing but few branches. This figure was taken from a plant sent to the author, about the beginning of July, in full bloom, by Mr. Colville, nurseryman, of the King's Road, Chelsea; who informs him that he raised it about the year 1795, from seeds which he had received from the Cape of Good Hope. The Borbonias are mostly hardy greenhouse plants, and delight in light earth; either peat, or very light dungy earth: they are in general difficult to propagate by cuttings; the surest method is by the seed, which they for the most part persect in this climate.

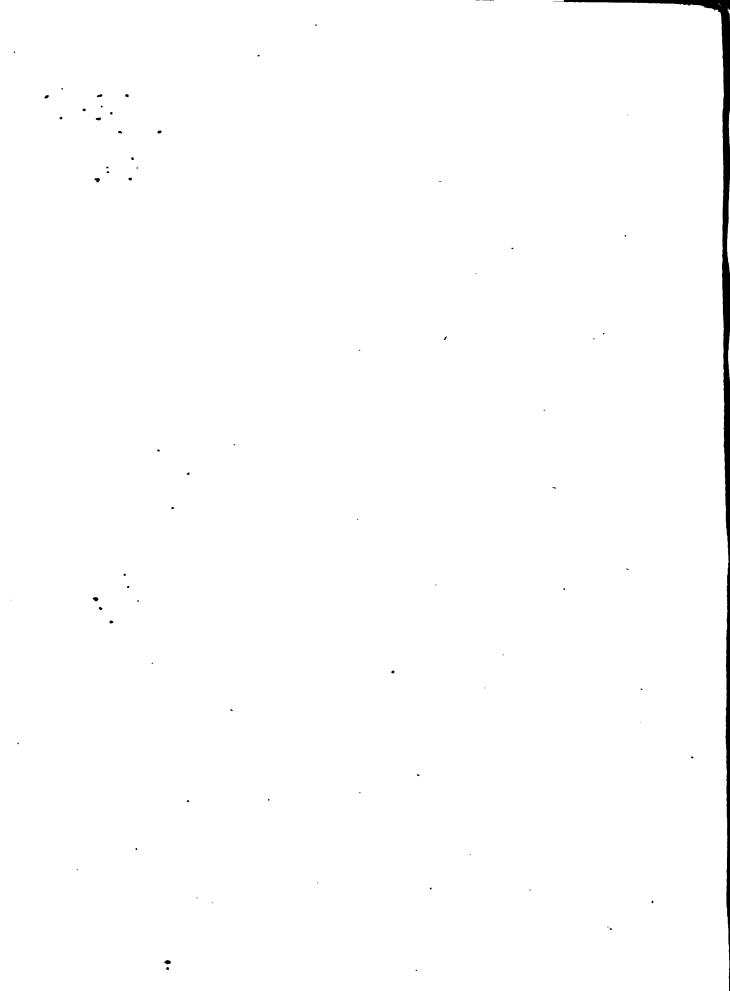






PLATE XXXII.

ANTHOLYZA RINGENS.

Gaping Antholyza.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves, alternatæ, flores diftinguentes, perfiftentes.

COROLLA. Petalum unicum e tubo fenfim dilatatum in faucem compressam, ringentem.

STAMINA. Filamenta tria, longa, tenuia, sublabio superiori. Antheræ acutæ.

PISTILLUM. Germen inferum. Stylus filiformis, fitu et longitudine flaminum fuperiorum. Stigma trifidum, capillare, reflexum.

Pericarpium. Capfula fubrotunda, trilocularis, trivalvis.

Semina plura, triangularia.

EMPALEMENT. Sheath of two valves, alternate, dividing the flowers, and abiding.

BLOSSOM. One petal, widening in the tube, flattened at the mouth, and gaping.

Chives. Three threads, long, thin, and placed under the upper lip of the bloffom. Tips fharp.

POINTAL. Seed-bud beneath. Shaft threadfhaped, in the same place, and of the same length of the upper chives. Summit cut into three hair-like divisions, which are bent back.

SEED-VESSEL. Capfule nearly round, three cells, three valves.

SEEDS many, triangular.

SPECIFIC CHARACTER.

Antholyza corollæ labiis divaricatis; fauce compressa. Antholyza with the lips of the blossom in various directions; the mouth flattened.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Bloffom cut open, to shew the insertion of the Chives.
- 3. The Pointal (natural fize).

ALTHOUGH this species of Antholyza is not new in our gardens, yet has it been seen in flower but by sew, as it blows so seldom; though the roots are by far the largest of any of the genus. The bulb from which this sigure was taken, had received a little assistance from heat early in the season, and by that means was (apparently) brought into flower. It is a native of the Cape of Good Hope, has much the appearance of a common stag in the soliage, growing to the height of three seet, or more; requires the same earth as Ixias, propagates by the root, or seed, and slowers in the month of June; at which time a drawing was made from a plant then in bloom at the Hammersmith nursery.

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Diesma latifolia

PLATE XXXIII.

DIOSMA LATIFOLIA.

Broad-leaved Diosma.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quinquepartitum; laciniis tenuibus, acutis, persistentibus; basi plana.

COROLLA. Petala quinque, ovata, obtusa, sesfilia, erecto-patula.

Nectarium coronæ forma, excavatum, quinquefidum, obtusum, germini impositum.

STAMINA. Filamenta quinque, fubulata. Antheræ fubovatæ, erecæ.

PISTILLUM. Germen coronatum nectario. Stylus fimplex, longitudine staminum. Stigma obsoletum.

Pericarrium. Capfulæ quinque, ovato-acuminatæ, compressæ, margine introrsum coalitæ, apicibus distantes, sutura superiori dehiscentes.

SEMINA folitaria, oblonga.

Arillus elasticus, hinc dehiscens; singulum involvens semen.

EMPALEMENT. Cup of four divisions; fegments thin, sharp, and permanent; smooth at the base.

BLOSSOM. Five petals, egg-shape, blunt, fitting close, erect, and open.

Honey-cup crown-shaped, hollow, with five divisions, blunt, fixed on the seed-buds.

Chives. Five threads, awl-shaped. Tips nearly egg-shaped, upright.

POINTAL. Seed-bud crowned by the honeycup. Shaft fimple, the length of the chives. Summit blunt.

SEED-VESSEE. Five capfules, egg-shaped, pointed, flattened, joined together by the inneredge, the points standing apart, splitting at the upper suture.

SEEDS folitary, oblong.

Seed-coat elastic, splitting from hence, and inclosing a single seed.

SPECIFIC CHARACTER.

Diosma, foliis oppositis, serratis, ovalibus, latissimis; storibus terminalibus, albidis, sesfilibus. Dioima with opposite leaves, sawed, oval, and very broad; slowers terminal, white, and sitting close to the branches.

REFERENCE TO THE PLATE.

- 1. A Bloffom complete.
- 2. The Chives and Pointal, with the furrounding Seed-buds and Honey-cups.
- 3. The Pointal, natural fize, with the Empalement attached.
- 4. The same magnified.
- 5. A Seed taken from its coat.

There are few genera of plants more deserving our notice than Diosma; the fragrance of the leaves of most of the species, and the beauty of the flowers of others, has rendered them so common, (being easily propagated by cuttings) that sew collections but have a number of the different species. They are all very hardy greenhouse plants, the present species excepted; this, requiring a dry situation, and rather more warmth than the rest. It was sent to the royal gardens at Kew, about the year 1791, by Mr. F. Masson, to whose industry botany stands so much indebted. Of all the Diosmas this is the highest grower, aspiring to three or four seet, or more, if encouraged; delights in peat earth, and slowers about the month of August.

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PLATE XXXIV.

CHELONE RUELLIOIDES.

Scarlet Chelone.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, quinquepartitum, breviffimum, persistens; laciniis erectis, ovatis.

COROLLA monopetala, ringens; tubus cylindraceus, brevissimus; faux instata, oblonga, supra convexa, infra plana; limbus clausus parvus; labium superius obtusum, emarginatum; limbus inferius cum superiori fere æquale, lævissime trisidum.

STAMINA. Filamenta quatuor, sub dorso corollæ recondita, quorum duo lateralia paulo longiora; antheræ incumbentes.

Rudimentum quinti filamenti, mucronis inftar, intra superius staminum par.

PISTILLUM. Germen ovatum. Stylus filiformis, fitu, et longitudine staminum. Stigma obtusum.

PRRICARPIUM. Capfula ovata, bilocularis, calyce longior.

Semina plurima, fub-rotunda, margine membranaceo cinca.

EMPALEMENT. Cup one leaf, five divisions very fhort, permanent; fegments upright and egg-shaped.

BLOSSOM. One petal, gaping; tube cylindrical, very fhort; mouth swelled, oblong, rounded on the upper, and flat on the lower part; border shut, and small; upper lip blunt, bordered; lower lip nearly as long as the upper, slightly divided into three at the end.

CHIVES. Threads four, hid under the upper part of the bloffom; of which the two fide ones are a little longer than the others. Tips fixed fideways to the threads.

The rudiment of a fifth thread, like a sharp point is placed equal with, and between the upper chives.

POINTAL. Seed-veffel egg-fhaped. Shaft threadfhaped, of the same length, and place as the chives. Summit blunt.

Seed-vessel. Capfule egg-shaped, two cells longer than the empalement.

SEEDS many, nearly round, bound at the edge by a thin ikin.

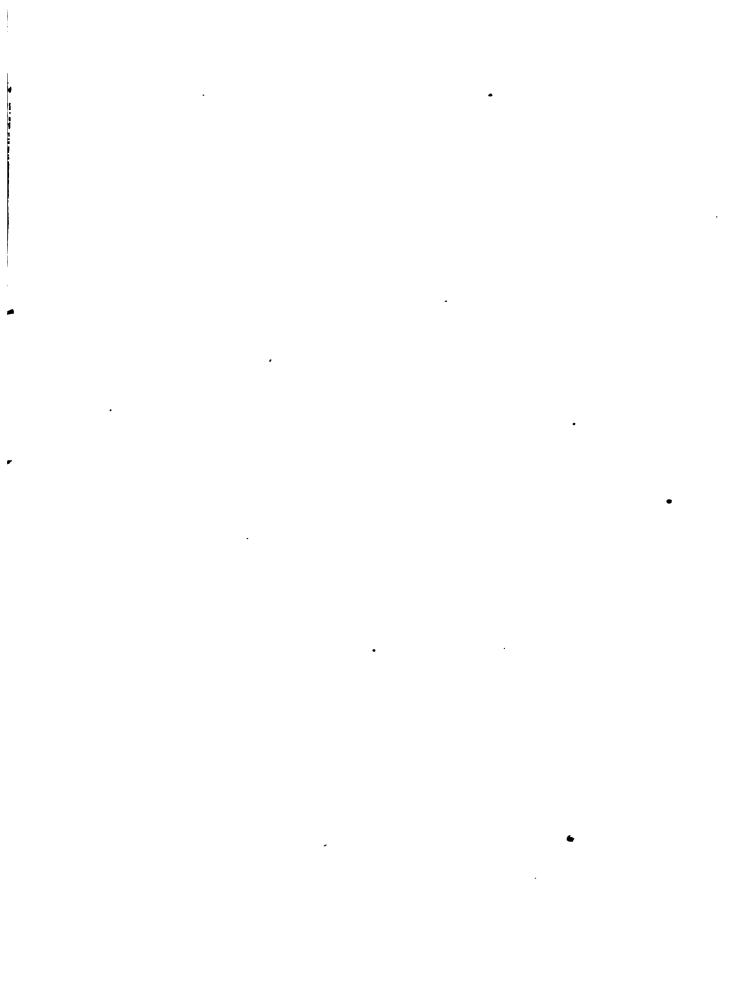
SPECIFIC CHARACTER.

Chelone foliis inferioribus fpathulatis, glabris; fuperioribus lanceolatis, oppositis; corollis cernuis, coccineis; labiis inferioribus barbatis. Chelone with fpathulate, fmooth leaves on the lower part of the stem; and lance-shaped, opposite ones on the upper; blossoms hanging down, and scarlet; the lower lips bearded.

REFERENCE TO THE PLATE.

- 1. A Leaf from the lower part of the Stem.
- 2. The Empalement.
- 3. A Bloffom cut open, to shew the fituation of the Chives, and the imperfect rudiments of a fifth.
- 4. The Seed-vessel, and Pointal, (natural fize).

THE Chelone Ruellioides is a native of Chili, South America, and was introduced to the royal gardens at Kew in the year 1793, by Mr. Boutelow, the fon of the gardener to the King of Spain, who was then in England purfuing his botanical studies. It is (apparently) a hardy plant, and fit to endure the open borders, but, as yet, we have not had a sufficient trial to ascertain it; hitherto it has been treated as a greenhouse plant. Being herbaceous, it is propagated by parting the roots, which should be done in spring, about the month of March. The proper season of its slowering cannot well be determined, as it has undergone such various treatment. The plant from which this figure was made was in full bloom at the gardens of G. Hibbert, Esq. Clapham, in the month of June 1797, where it was seen to slower, for the first time in this country. The soil it seems to thrive in most, is a composition of loam, and rotten dung.



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Txia erispifolia.

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PLATE XXXV.

IXIA CRISPIFOLIA. Var. flore cæruleo.

Crisped-leaved Ixia. Blue Variety.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Conolla 6-petala, patens, æqualis. Stigmata 3, erectiusculo-patula.

BLOSSOM fix petals, spreading equal. Summits three, nearly upright, and spreading.

See IXIA REFLEXA, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis crispis; fcapus ramofus, flexuofus, fpithamæus; floribus fub-umbellatis, cæruleis.

Ixia with crifped leaves; flower-ftem branched, waved, and a fpan high; flowers grow in partial umbels, and are blue.

REFERENCE TO THE PLATE.

- 1. The two Sheaths of the Empalement.
- 2. A Bloffom cut open, to shew the infertion of the Chives.
- 3. A Chive (magnified).
- 4. The Pointal, one of the divisions of the Summit detached, and magnified.

This fingular species of Ixia, is one amongst the many given by the Dowager Lady De Clissord to Messrs. Lee and Kennedy Hammersmith, in the year 1794; at which time, her ladyship had just received the bulbs in a present from the Cape. It is described by Thunberg, in his Differtatio de Ixia, published in 1783. The root of this plant is of a most curious shape, having the appearance of being the half, rather than the whole; it is very delicate, is easily destroyed by moisture, therefore (except when in slower) should be kept very dry; it propagates by the root, the old one generally producing two; slowering about the month of June, or July, but requires the warmth of a moderate hothouse to expand its blossoms. Like other Cape bulbs, it should be planted in sandy peat.

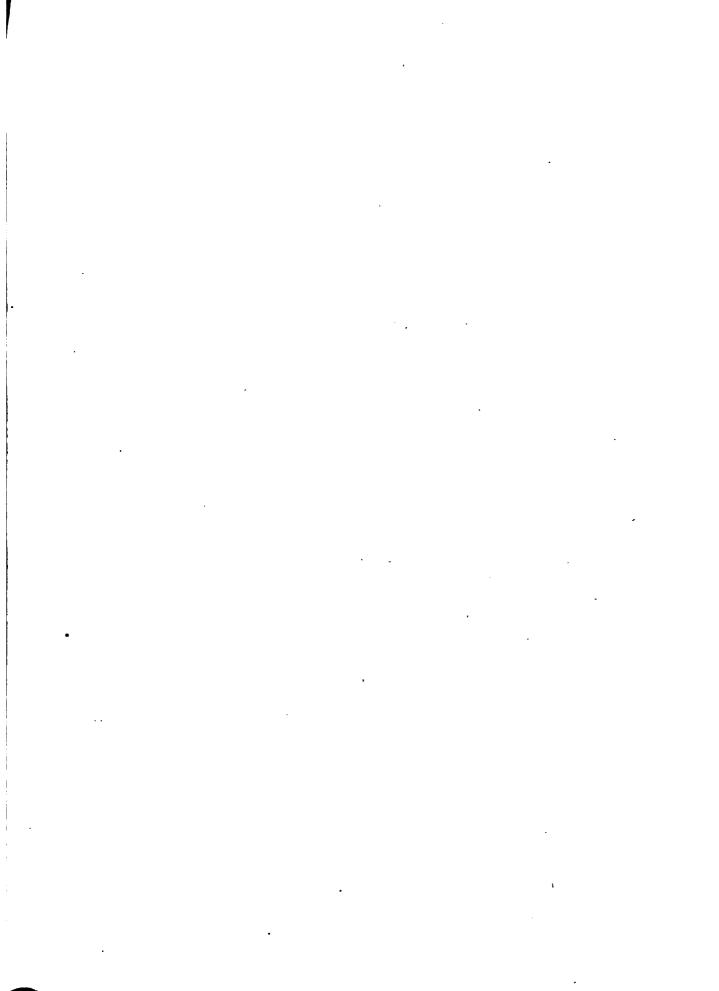






PLATE XXXVI.

RHODODENDRON PUNCTATUM.

Dotted-leaved Rhododendron.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-partitus. Corolla rotato-infundibuliformis. Stamina declinata. Capfula 5locularis.

EMPALEMENT of five divisions. Blossom of a rounded funnel-shape. Chives bent downward. Capsule of five cells.

See Rhododendron Dauricum, Plate IV.

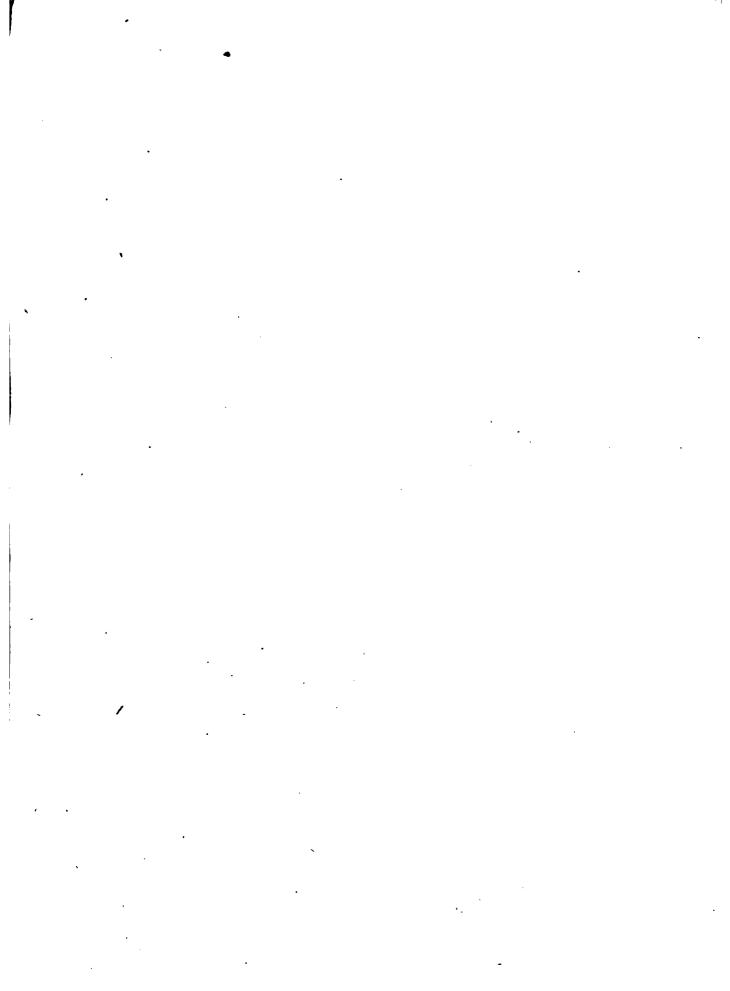
SPECIFIC CHARACTER.

Rhododendron foliis glabris, fubtus punctatis; viminibus laxis; corollis crifpis, violaceopurpureis. Rhododendron with smooth leaves, dotted on the under part; slender loose branches; blossoms crisped, and of a blueish purple.

REFERENCE TO THE PLATE.

- 1. A Bloffom.
- 2. The Chives, and Pointal (natural fize); one tip detached (magnified).
- 3. The Seed-veffel, and Pointal, (natural fize).

It is to the industrious researches of J. Frasier, nurseryman, of the King's Road, Chelsea, we are indebted for this charming species of Rhododendron, who introduced it in the year 1792 from the back settlements of Carolina, North America, where it is native. This species is by far the most delicate of any yet discovered on that continent; grows to the height of three, or four feet, and of sufficient hardiness to resist our winters in the open ground; a slight protection insures its slowering, as our late frosts are apt to injure the buds, which are very often without that assistance destroyed. The best method of propagating this shrub is by layers, which should be taken off in autumn, and protected the first winter. It slowers about the month of July, at which season this year a drawing was made from a plant, in the nursery of Lee and Kennedy, Hammersmith. It (like most American plants) delights in sandy peat.



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PLATE XXXVII.

GERANIUM FRAGILE.

Brittle-stalked Geranium.

CLASS XVI. ORDER II.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

Monogyna. Stigmata 5. Fructus roftratus, 5-coccus.

ONE POINTAL. Summits five. Fruit furnished with long awns, five dry berries.

See Geranium Grandiflorum, Plate XII.

SPECIFIC CHARACTER.

Geranium foliis carnofis, pinnatis; caulis fruticofus, ramofus, fragilis; petalis linearibus, pedunculis erectis.

Geranium with fleshy winged leaves; stem shrubby, branched and brittle; petals linear, fruit-stalks upright.

REFERENCE TO THE PLATE.

- 1. The Empalement cut open, to shew its tubular shape to its base.
- 2. The Chives, and Pointal, (natural fize).
- 3. The Pointal, (magnified).

THE Geranium fragile has in general seven sertile tips, and thus comes under Linnaus's first arrangement; and Mons. L'Heritier's Genus Pelargonium. It is a native of the Cape of Good Hope, and was introduced by Messrs. Lee and Kennedy in the year 1792. This plant seldom grows more than a foot high, but during the months of July, August, and September, it is covered with blossoms, which are of a pale yellow, striped at the bottom with red, standing nearly upright. It is rather a tender plant, requiring a dry stove, or hothouse, to preserve it in winter, being very subject to damp in the leaves; is easily propagated by cuttings, and thrives best in rich mould.

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PLATE XXXVIII.

GLADIOLUS PRÆCOX. Var. flore rubro.

Red early-flowering Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, ringens. STAMINA adicendentia.

BLOSSOM fix divitions, gaping..

CHIVES afcending.

See Plate XI. GLADIOLUS ROSEUS.

SPECIFIC CHARACTER.

Gladiolus foliis enfiformibus, apicibus tortis, lineari-cruciatis; corollis fub-campanulatis, rubris; petalis acuminatis.

Gladiolus with iword-shaped leaves, twisted at the ends, linear, and cross-shaped; blossoms nearly bell-shaped, and red; petals sharppointed.

REFERENCE TO THE PLATE.

- 1. The two Sheaths of the Empalement.
- 2. A Blossom cut open, to expose the fituation of the Chives.
- 3. The Pointal, one of the Summits magnified.
- 4. A Seed.

Or all the species of this numerous Genus, this is the first to expand its blossoms, seldom flowering later than April; is extremely hardy, scarce requiring the warmth of a greenhouse for its protection, although a native of the Cape. About the year 1791, the bulbs of this plant were purchased of Messis. Voorhelm, and Co. of Haarlem, in Holland, by Messis. Lee and Kennedy, Hammersmith, at whose nursery it has repeatedly flowered, and where this figure was taken. It is propagated by the root, as other Gladiolus, and requires the same earth, a light sandy peat.

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PLATE XXXIX.

ECHIUM FEROCISSIMUM.

Prickly Viper's Bugloss.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA irregularis, fauce nuda.

BLOSSOM irregular, mouth naked.

See Echium Grandiplorum, Plate XX.

SPECIFIC CHARACTER.

Echium caule fruticoso; ramis, foliisque aculeatis; floribus spicatis, violaceis; corollis sub-æqualibus.

Viper's Bugloss, with a shrubby stem; branches and leaves covered with sharp prickles; slowers growing in spikes, and violet coloured; blossoms nearly equal.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Bloffom cut open, to shew the insertion of the Chives in the tube.
- 3. The Shaft and its Summit, magnified.

ALTHOUGH there are few species of this genus, but are rough, or hairy; yet this by far exceeds any of them, or almost any other plant not actually spiny, for its extreme coarseness to the touch; nevertheless it is a very handsome shewy greenhouse plant, growing to the height of two seet, and blowing freely. It is a native of the Cape of Good Hope, and was introduced by Messrs. Lee and Kennedy in 1794; at whose nursery it flowered for the first time, this year, in the month of July. The only method of propagating the Cape Echiums is by cuttings, and that is done with great difficulty; of course, this, as well as the other species, are very scarce: they delight most in rich light mould.



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PLATE XL.

CHELONE CAMPANULOIDES.

Bell-flowered Chelone.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-partitus. Rudimentum filamenti quinti inter fuprema stamina. Capfula bilocularis.

EMPALEMENT of five divisions. The rudiment of a fifth thread is found placed between the upper chives. Capsule of two cells. See Plate XXXIV. CHELONE RUELLIGIDES.

SPECIFIC CHARACTER.

Chelone foliis oppositis, sessilibus, acuminatis, profunde serratis; corollis campanulatis, purpureis.

Chelone with opposite leaves sitting close to the stem, tapering to the point, and deeply sawed; blossoms bell-shaped, and purple.

REFERENCE TO THE PLATE.

- 1. A Bloffom cut open, to shew the fituation of the four Chives, and station of the fifth imperfect thread.
- 2. The Pointal, (natural fize).
- 3. The Seed-veffel, with the Empalement and Shaft still remaining attached.

This species of Chelone is of the same date in our gardens as the Chelone Ruellioides, and was introduced through the same medium: it is a native of Mexico in South America; will make a pretty addition to our greenhouse exotics; and is described and engraved by A.J. Cavanilles, in his first volume of Spanish plants. It seems to thrive best in rich, dungy earth, and is easily propagated by cuttings, or seeds; of which latter it produces abundance; but does not appear to be long lived. The plant from which this sigure was taken, slowered (as we suppose for the first time in England) in the collection of B. Robertson, Esq. of Stockwell in Surry, and kindly communicated by him to the author.

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PLATE XLI.

LACHENALIA PENDULA.

Drooping-flowered Lachenalia.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

COROLLA monopetala, cylindracea, fexpartita; tubus gibbus; laciniis tribus exterioribus brevioribus.

STAMINA. Filamenta sex, subulata, longitudine corollæ, inserta basi laciniarum corollæ. Antheræ oblongæ, incumbentes.

PISTILLUM. Germen trigonum, trifulcum. Stylus fimplex, corolla paulo longior. Stigma obtufum.

Pericarrium. Capfula triquetra, trilocularis, trivalvis.

SEMINA plurima, globofa.

EMPALEMENT, none.

BLOSSOM one leaf, cylindrical, divided into fix; tube gouty; the three outer divisions the shortest.

Chives. Threads fix, awl-shaped, the length of the blossom, fixed into the base of the divifions of the blossom. Tips oblong, laying on the threads.

Pointal. Seed-bud three-fided, three-furrowed.

Shaft fimple, a little longer than the bloffom. Summit blunt.

Seed-vessel. Capfule three-fided, three cells, three valves.

SEEDS many, globular.

SPECIFIC CHARACTER.

Lachenalia foliis longiffimis, ovato-oblongis, immaculatis; corollis speciocissimis, maximis, tricoloratis, pedunculatis, cernuis. Lachenalia with very long egg-shaped oblong leaves, without spots; blossoms very shewy, large, three-coloured, having foot-stalks, and nodding.

REFERENCE TO THE PLATE.

- 1. A Flower spread open, to shew the insertion of the Chives.
- 2. The same, exhibiting the character of the outer Petals.
- 3. The Pointal, natural fize.

The genus Lachenalia is certainly an infringement on Hyacinthus; the small distinction on which this new genus is founded can, at most, be considered but of sufficient consequence to form a specific character, so thought Linnæus: the son of Professor Jacquin has thought otherwise, having called it after a botanist of the name of De la Chenal; and under which it is now generally known; therefore we have not replaced it under its old title, though we have authority of such weight to corroborate our opinion. The Lachenalias are natives of the Cape of Good Hope, yet are of so hardy a nature as to require no farther protection than shelter from the severe frosts. Our species is the handsomest yet known, slowering about September; was, according to the Kew catalogue, introduced there by Mr. F. Masson in the year 1774. It was from a plant in the extensive collection of G. Hibbert, Esq. Clapham Common (to whose kind communications the author acknowledges himself much indebted), that this sigure was taken, the latter end of September this year. No plant is more easy or certain to increase than this; the young offsets are produced in such abundance from the old bulb, which delights in a light soil; but its flowering is not so certain.

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PLATE XLII. ORCHIS CILIARIS.

Fringed Orchis.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix fimplex. Perianthium nullum.

COROLLA. Petala quinque; tria exteriora; duo interiora furfum conniventia in galeam.

Nectarium monophyllum, a latere inferiore inter divisuram petalorum receptaculo affixum. Labio superiore erecto, brevissimo. Labio inferiore magno, patente, lato. Tubo postice corniformi, nutante.

STAMINA. Filamenta duo, tenuissima, brevissima, pistillo insidentia. Antheræ obovatæ, erecæ, tecæ duplicatura biloculari labii superioris necarii.

PISTILLUM. Germen oblongum, contortum, inferum. Stylus adnatus labio superiori nectarii, brevissimus. Stigma compressum, obtusum.

Pericarpium. Capíula oblonga, unilocularis, tricarinata, trivalvis; fub carinis trifariam dehiscens, apice et basi cohærens.

Semina numerola, minima.

SPECIFIC CHARACTER.

Orchis radicibus fubpalmatis, expansis; nectarii labio lanceolato, ciliato, cornu torto, longissimo; sloribus luteis.

EMPALEMENT. Sheaths scattered. Fruit-stalk fimple. Cup none.

BLOSSOM. Petals five; three outer ones; two inner ones approaching upwards in form of a helmet.

Honey-cup one leaf, fixed by the lower fide to the receptacle betwixt the division of the petals. Upper lip upright, and very short. Lower lip large, spreading, broad. Tube slanding behind, shaped like a horn, and hanging down.

Chives. Two threads, very flender, and very flort, fixed on the pointal. Tips inverfely egg-shaped, upright, covered by a folding of the upper lip of the honey-cup, forming two cells.

Pointal. Seed-bud oblong, twisted, and beneath. Shaft fixed to the upper lip of the honey-cup, very short. Summit flattened, and blunt-ended.

SEED-VESSEL. Capfule oblong, of one cell, three keels, three valves; fplitting in three places under the keels; fastened at the point, and the base.

SEEDS numerous, very imall.

Orchis with roots nearly hand-shaped, spreading; lip of the honey-cup lance-shaped, and fringed, horn twisted, very long; slowers yellow.

REFERENCE TO THE PLATE.

- 1. The Honey-cup with its Horn.
- 2. The upper Petal.
- 3. A fide Petal.
- 4. One of the inner Petals.
- 5. The Chives, and Pointal attached to the horn of the Honey-cup.
- 6. The Chives, and Pointal, magnified; with the Chives drawn from their cells.

This handsome Orchis is a native of North America, and is found in all the states from Virginia as far north as Canada: it has been treated of by Ray, Morison, Gronovius, Royen, Linnæus, and others; but although so long known by name, it was not introduced to our gardens before the year 1796; having been sent that year from Philadelphia by Mr. J. Lyons, from the gardens of J. Hamilton, Esq. to Messrs. Lee and Kennedy, Hammersmith; at whose nursery it slowered this year, in the month of July, when the drawing was made. It is a hardy herbaceous plant, thriving best in a shady border, and should be planted in a mixture of loam and peat earth. The propagation of this plant, like most of the genus, is difficult, the seeds being too small to be collected, and the root seldom producing more than one bud.

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PLATE XLIII.

BIGNONIA LEUCOXYLON.

Oleander-flowered Trumpet Flower.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

CALYX. Perianthium monophyllum, erectum, cyathi-forme, quinquefidum.

COROLLA monopetala, campanulata; tubus minimus, longitudine calycis; faux longiffima, fubtus ventricosa; limbus quinque partitus; laciniis duabus superioribus reslexis; inferioribus patulis.

STAMINA. Filamenta quatuor, fubulata, corolla breviora, quorum duo reliquis longiora. Antheræ reflexæ, oblongæ, velut duplicatæ,

PISTILLUM. Germen oblongum. Stylus filiformis, fitu et figura staminum. Stigma capitatum.

Pericarpium. Siliqua bilocularis, bivalvis.

Semina plurima, imbricata, compressa, utrinque membranaceo alata.

EMPALEMENT. Cup one leaf, upright, cupfhaped, and cut into five divisions.

BLOSSOM of one bell-shaped petal; tube small, the length of the cup; mouth very long, swelled at the bottom; border of five divisions; the two upper segments reslexed, the lower ones spreading.

Chives. Threads four, awl-shaped, shorter than the blossom, two of which are longer than the others. Tips bent back, oblong, and appear doubled.

POINTAL. Seed-bud oblong. Shaft threadfhaped, of the same situation and shape as the chives. Summit headed.

SEED-VESSEL. Pod of two cells, and two valves.
SEEDs many, laying one over the other, flat, and winged at each fide.

SPECIFIC CHARACTER.

Bignonia foliis digitatis; foliolis integerrimis, ovatis, acuminatis; caule erecto, arboreo; floribus nerii; alato semine.

Trumpet Flower with fingered leaves; the small leaves entire, egg-shaped, tapered; stem upright, growing to a tree; with flowers like the oleander; seed winged.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Blossom cut open, shewing the proportionate length of the Chives to the Blossom, and their insertion; one of the Tips detached, and magnified.
- 3. The Pointal, (natural fize); the Summit detached, and magnified.

This species of Bignonia is well known in most collections of hothouse plants, and was first introduced to the Chelsea gardens by Mr. P. Miller, the then gardener, in 1759, and may be found described in his Dictionary; but, notwithstanding its frequency, sew have seen its blossoms. Owing to the naked appearance of the stem, and its growing to so considerable a height before it flowers, and that but rarely, has rendered it a plant but of little consideration; though perhaps, from the great beauty of its blossoms, it deserves more attention. Being a native of the West Indies, it does not slourish without the affistance of tan heat; but will live in any fituation of the hothouse; thriving best in a mixture of loam and peat, and is readily propagated by cuttings. It was from a plant in the select and valuable collection at Paddington, belonging to the Hon. Dowager Lady De Clifford (to whom the author, as well as all the cultivators and professors of the science, stand much indebted for the zeal and patronage which her ladyship has shewn, in her endeavours to promote it), that this figure was taken in July this present year 1798.

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Txia cinnamomea.

PLATE XLIV.

IXIA CINNAMOMEA.

Cinnamon-smelling Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens, æqualis. Stigmata tria, erectiusculo patula.

Blossom fix petals, spreading, and equal. Summits three, nearly upright, spreading.

See IXIA REFLEXA, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis falcatis, crifpis; floribus alternis, noctiflorens, cinnamomi odore. Ixia with scimitar-shaped leaves, waved at the edge; slowers alternate, blowing at night, and smelling of cinnamon.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Flower cut open, with the Chives attached.
- 3. The Chives, attached to the tubular part of the Bloffom, the border cut off, (magnified).
- 4. The Shaft, Summit, and Seed-bud, (magnified).

Amongst this most extensive genus no species stands more distinct than this. The extreme sweetness and delicacy of its blossoms, which expand only by night, and close in the morning, give it a decided superiority over many of its congeners. Thunberg, who saw it at the Cape, has described it under the name it here bears; but till the year 1792 we had no knowledge of it, when it was first introduced by Messrs. Lee and Kennedy, Hammersmith, from the Cape of Good Hope; at whose nursery it slowered the following year; where it continues to blow annually, and whence this sigure was taken. It is rather a tender bulb, small, and easily rotted; should therefore be placed in the warmest part of the greenhouse, and kept dry when out of flower; is rather difficult to increase, as each bulb seldom produces more than one offset, nor that always, and rarely seeds.

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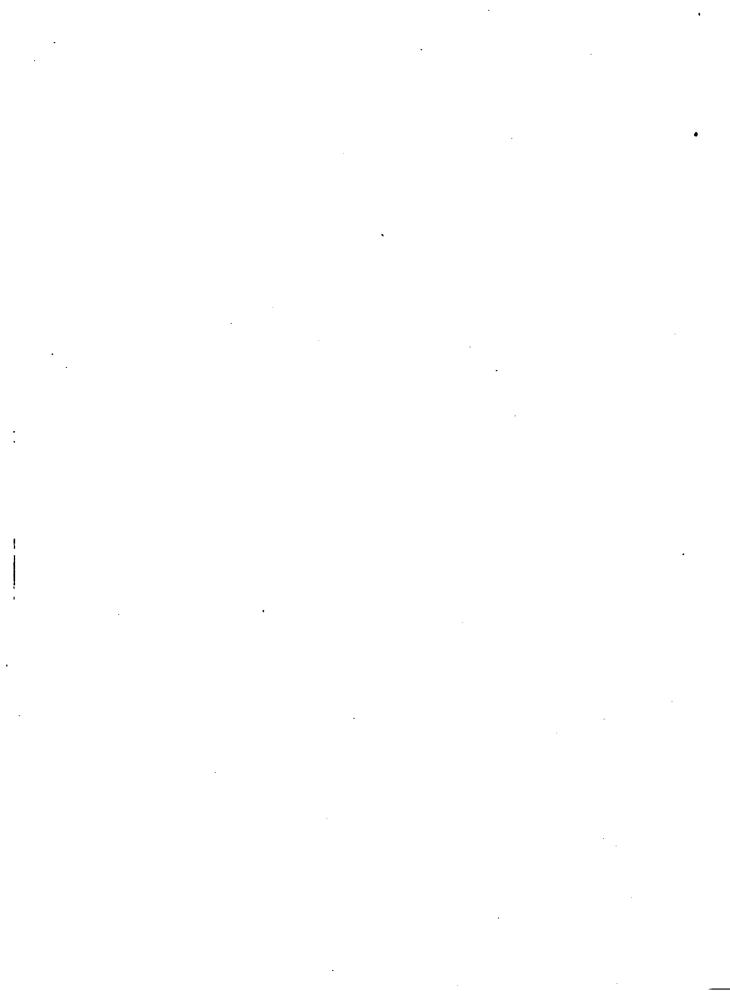




PLATE XLV.

IRIS LONGIFOLIA.

Long-leaved Iris.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Spathæ bivalves, flores diftinguentes, perfiftentes.

COROLLA sexpartita; petala oblonga, obtusa, tria exteriora reslexa, tria interiora erecta, acutiora; omnia unguibus conata.

STAMINA. Filamenta tria, subulata, petalis reflexis incumbentia. Antheræ oblongæ, rectæ, depressæ.

PISTILLUM. Germen inferum, oblongum. Stylus fimplex, brevissimus. Stigma maximum, 'tripartitum, laciniis petala mentientibus, latis, reflexis, stamina et petala alterna deprimentibus, apicibus bisidis.

Pericarpium. Capfula oblonga, angulata, trilocularis, trivalvis.

SEMINA plurima, ovata, glabra.

EMPALEMENT. Sheaths of two valves, separating the flowers, permanent.

BLOSSOM with fix divisions; petals oblong, blunt, the three outer ones reflexed, the three inner ones upright, and sharper; all connected by the claws.

CHIVES. Threads three, awl-shaped, laying on the reflexed petals. Tips oblong, straight, depressed.

POINTAL. Seed-bud beneath, oblong. Shaft fimple, very fhort. Summit very large, divided into three fegments, refembling petals, broad, bent back, and alternately preffing down the chives and petals, cleft at the ends.

SEED-VESSEL. Capfule oblong, angular, of three cells, and three valves.

SEEDs many, egg-shaped, and smooth.

SPECIFIC CHARACTER.

Iris foliis linearibus, canaliculatis, longiffimis, glaucis; fcapus teres, multiflorus; radix bulbofus.

Iris with linear, channelled leaves, very long, and bluish; flower-stem cylindrical, with many slowers; the root bulbous.

REFERENCE TO THE PLATE.

- 1. The two Sheaths of the Empalement.
- 2. The Chives as attached to the Seed-bud.
- 3. The Pointal complete.

This Iris is a native of the Cape of Good Hope, and was introduced to us from the collection of Meffirs. Voorhelm and Schnevoght, of Haarlem in Holland, about the year 1792. The leaves of this delicate Iris grow fometimes to the length of three feet, giving it a very fingular appearance: it should be treated like the Cape Ixias, and protected from the weather, whilst in bloom, as the flower is injured by the lightest wind, and the duration of each blossom is but a few hours; there is, however, a good succession, which rise diurnally from the same sheath, seldom more than one at a time. This sigure was taken in the month of June 1797, at the Hammersmith nursery. It has a singular mode of propagating itself; the old root dying, two young ones are formed above it, from whence the flower-stem arises: seldom ripe seeds are produced.



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Malsonia violacer.

PLATE XLVI.

MASSONIA VIOLACEA.

Purple-flowered Massonia.

C L A S S VI. O R D E R I. HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

COROLLA sex-petala. Petala nectario imposita, lanceolata, patentia.

Nectarium inferum, cylindricum, membra-

STANINA. Filamenta sex, nectarii dentibus inferta, filiformia declinata, petalis paulo longiora. Antheræ ovatæ.

PISTILLUM. Germen (respectu nectarii) superum. Stylus subulatus, declinatus, longitudine, staminum. Stigma simplex, acutum.

Pericarium. Capfula triquetra, glabra, trilocularis, trivalvis, angulis dehifeens.

Semina plurima, globosa, glabra, magnitudine seminum finapios.

SPECIFIC CHARACTER.

Maffonia, foliis spathulatis, glabris; scapus filiformis, erectus, bipollicaris; slores pedunculati, violacei, sparsi, pedunculi uniflori. EMPALEMENT none.

BLOSSOM fix-petals. Petals placed on the honeycup, are lance-shaped and spreading. Honey-cup beneath, cylindrical and skinny.

Chives. Six threads, fixed into the teeth of the honey-cup, thread-shaped, bent downward, and a little longer than the petals. Tips egg-shaped.

POINTAL. Seed-bud (with regard to the honeycup) above. Shaft awl-shaped, and bent downward the length of the chives. Summit fimple, and pointed.

SEED-VESSEL. Capfule three-fided, and fmooth, of three cells and three valves, fplitting at the angles.

SEEDS many, globular, fmooth, the fize of a muftard feed.

Massionia with spatula-shaped, and smooth leaves; slower-stalk thread-shaped, upright, two inches high; the flowers have foot-stalks, are of a violet colour, and grow scattered; the foot-stalks have each but one slower.

REFERENCE TO THE PLATE.

- 1. A Flower complete.
- 2. The same cut open, to shew the insertion of the Chives.
- 3. The Pointal.

This genus of plants perpetuates the name, as a botanist, (would it could likewise the mild, unassuming, and universally allowed amiableness of character) of Mr. Francis Masson, botanical collector to his Majesty; now exploring the untrod regions of North America, to add to the extensive collections of his royal and munificent Masser, which stand so much indebted to his indefatigable industry for their present splendour. The Massonias are all rather tender, and require the same situation as Hæmanthus &c; that is, a dry stove; they are natives of the Cape of Good Hope, or, at least, grow within that point of Africa generally so called, but at some distance from the Cape town, near a mountain (according to Thunberg) of the name of Bocklands Berg. The root of this species is very subject to rot when the leaves are decayed, if watered at that time; therefore, like the Ixias, should be put aside, or taken out of the pot for two or three months, after flowering. It is very difficult to propagate, as the seeds are seldom persected, and rarely makes any offsets; flowering in September; about the beginning of which month this sigure was taken, from a plant in the collection of G. Hibbert, Esq. Clapham Common. It appears to thrive best in a mixture of peat and sandy loam.

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PLATE XLVII. MUSA COCCINEA.

Scarlet flowered Plantain-tree.

CLASS XXIII. ORDER I.

POLYGAMIA MONOCCIA. Various dispositions. Upon one Plant.

GENERIC CHARACTER.

Hermaphroditi feminei flores.

CALYX. Spatha partialis ovato-oblonga, planoconcava, magna.

COROLLA inæqualis, ringens; petalo constituente labium superius, nectario vero labium

Petalum erectum, ligulatum, quinquedentatum, basi antice connivens.

Nectarium monophyllum, naviculare, petalo, brevius, intra finum petali insertum.

STAMINA. Filamenta sex, subulata erecta, pe-talo dimidio breviora. Antheræ abortivæ.

PISTILLUM. Germen infra receptaculum floris, maximum, longissimum. Stylus erectus, longitudine petali. Stigma capitatum, sub-

Bacca carnofa, corio tecta, longissima, pulpa trifariam, absque dissepimentis.

SEMINA plurima, globofa.

Hermaphroditi masculi flores.

CALYX ut in feminæo. COROLLA ut in feminæo.

STAMINA. Filamenta ut in feminæo, at longiora, tenuiora. Antheræ lineares, sulcatæ, erectæ, magnæ.

PISTILLUM. Germen ut in feminæo, ut minus. Stylus, et stigma ut in fæmineo, at minora.

Pericarpium abortit.

Hermaphrodite flowers, where the female parts

are perfect.
Partial sheath oblong, egg-EMPALEMENT. fhaped, fmoothly-concave, and large.

BLOSSOM unequal and gaping; the petal forming the upper lip, the honey-cup the

Petal upright, ligulate, five-toothed, and meeting at the base in front.

Honey-cup one leaf, thip-shaped, shorter than

the petal, and inclosed within it.
Chives. Threads fix, awl-shaped, upright, shorter by half than the petal. Tips abortive.
Pointal. Seed-bud below the receptacle of

the flower, large and very long. Shaft upright the length of the petal. Summit headed, nearly round.

SEED-VESSEL. A fleshy berry, covered with a tough skin, very long, the pulp laying three ways, without partitions.

SEEDS many, round.

Hermaphrodite flowers, where the male parts are perfect.

EMPALEMENT as in the female flower.

BLOSSOM as in the female flower.
CHIVES. Threads as in the female flower, but longer, and thinner. Tips linear, channelled, upright and large.

POINTAL. Seed-bud the same as in the female, but smaller. Shaft and summit like the female, but smaller.

SEED-VESSEL is abortive.

SPECIFIC CHARACTER.

Musa spadice erecto; floribus capitatis; spathis confertis, coccineis, maximis, apicibus luPlantain-tree with an upright fruit-flalk; flowers growing in heads; sheaths crowded together, scallet, very large, points yellow.

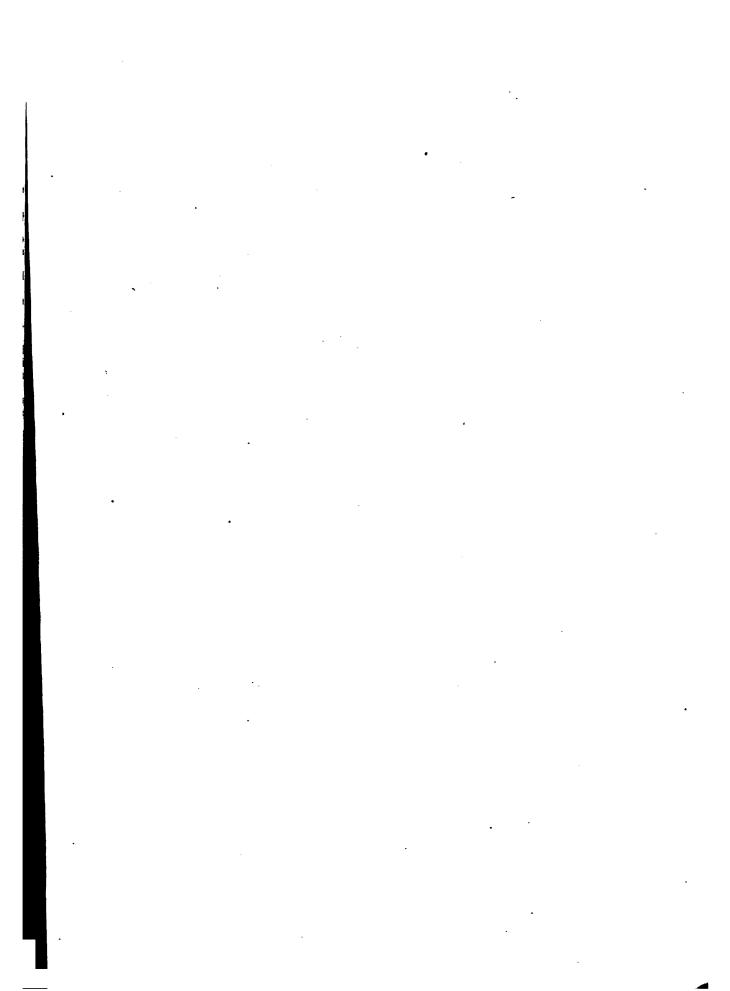
REFERENCE TO THE PLATE.

1. The upper lip of the bloffom, shewn in front, as cut off close to the seed-bud. 2. The same, shewing the hinder parts, with the three small claws on the border.

3. The honey-cup, which forms the lower lip of the bloffom.

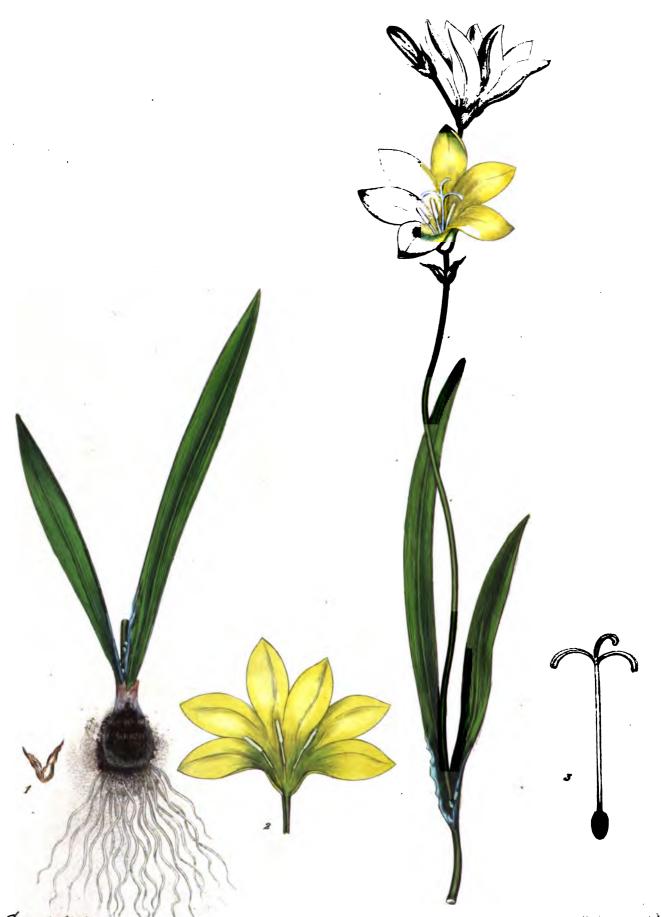
4. The feed-bud, chives, style, and summit, of a semale hermaphrodite flower. 5. A feed-bud cut obliquely, to expose the situation character of the seeds.6. The chives, seed-bud, shaft, and summit, of a male hermaphrodite flower.

THE honour of having introduced this supremely beautiful plant, pertains to, Thomas Evans Esq. of Stepney; a gentleman to whose zeal for the introduction of new plants our stoves are of late much beholden; he having received it, amongst many others, about the year 1792 from China, where, as well as in Cochin-China, Sumatra, Java, &c. it is very commonly found. Our figure was taken, in part, from a plant which flowered at James Vere's, Efq. Kenfington Gore, last December, and partly, from one in bloffom about the same time, at the Hon. Lady Archer's, Ham Common. The Musa Coccinea grows to the height of about three, or four feet before it blows, and without question, has no rival but Strelitzea Regina in the hothouse, where its brilliancy, tends in some degree, to dispel the gloom of winter, for at least three months. It increases itself by suckers, which are thrown up in abundance from a vigorous plant; may be taken off at any time, and will arrive at a flowering fize in twelve months; if planted in rich earth, and kept growing in pine heat, or on a strong hotbed.



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Ixia bulbifera.

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PLATE XLVIII.

IXIA BULBIFERA. Var. flore luteo.

Bulb-bearing Ixia. Var: yellow-flowered.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens, æqualis. Stigmata tris, erectiusculo patula.

BLOSSOM fix petals, fpreading, and equal. Summits three, nearly upright, and fpreading.

See INIA REPLEXA, Plate XIV.

SPECIFIC CHARACTER.

Ixia foliis falcatis, glabris, fcapo brevioribus, axillis bulbiferis; floribus alternis, luteis. Ixia with scimitar-shaped leaves, smooth, and shorter than the flower-stem, bearing bulbs at their insertion into the stalk; slowers alternate, and yellow.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Flower cut open, with the Chives attached.
- 3. The Shaft, Summit, and Seed-bud, (magnified).

The fingular sporting of Nature in the Ixia bulbifera is not uncommon; its viviparous character (if it may be so called) constitutes a specific difference in many genera; Lilium, Lysimachia, &c. partake of it. The bulbs produced from the stem blow the second year, whereas those from seeds do not till the third. The slowers of this variety are the first that open, amongst the numerous species yet introduced, of this extensive genus; they are of a brilliant yellow, and seldom expand more than one at a time. The usual treatment of other Cape Ixias is suitable for this. The drawing was made at Messirs. Lee and Kennedy's, in the month of March 1798, they having introduced it about the year 1784.

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PLATE XLIX.

MALPIGHIA CRASSIFOLIA.

Thick-leaved Malpighia.

· CLASS X. ORDER III.

DECANDRIA TRIGYNIA. Ten Chives. Three Pointals.

GENERIC CHARACTER.

- CALYX. Perianthium pentaphyllum, erectum, minimum, perfistens, connivens. Glandulæ melliferæ duæ, ovales gibbæ, foliolis calycinis externe inferneque adnatæ.
- COROLLA. Petala quinque, reniformia, magna, plicata, ciliata, patentia, concava; unguibus longis, linearibus.
- STAMINA. Filamenta decem latiuscula, erecta, in cylindrum posita, parva. Antheræ cordatæ
- Pistillum. Germen subrotundum, minimum. Styli tres, filiformes. Stigmata obtusa.
- Pericantium. Bacca globosa, torulosa, magua, unilocularis.
- SEMINA tria, offea, oblonga, obtufa, angulata.

- EMPALEMENT. Cup five leaves, upright, very fmall, remaining and cloting at the points.

 Two honey-bearing glands, oval and gouty, are fixed to the outer and lower part of the leaves of the cup.
- BLOSSOM. Petals five, kidney-shaped, large, plaited, lashed, spreading, and concave; claws long, linear.
- Chives. Threads ten, rather broad, upright, placed cylindrically, and imall. Tips heart-fhaped.
- POINTAL. Seed-bud nearly round, very fmall.

 Shafts three, thread-fhaped. Summits blunt.
- Pericarpium. Berry globular, knobby, large, of one cell.
- SEEDs three, bony, oblong, blunt, and angulated.

SPECIFIC CHARACTER.

- Malpighia foliis lanceolato ovatis, fubtus tomentofis, integerrimis; floribus terminalibus, spicatis, pallide-luteis.
- Malpighia with oval spear-shaped leaves, downy beneath, and entire; flowers terminate the branches in spikes, and are pale yellow.

REFERENCE TO THE PLATE.

- 1. The Empalement, Chives, and Pointal, (natural fize).
- 2. The Empalement, (magnified).
- 3. The Chives spread open, (natural fize).
- 4. A Thread, and its Tip, (magnified).
- 5. The Pointal complete, (natural fize).

ALTHOUGH, we have given to this species of Malpighia, the specific name under which it has been introduced; yet, there is much doubt, whether it is not the Verbascisolium of Linnaeus; or indeed if they are not both the same plant, named from different specimens. Our species makes a very hand-some hothouse plant, growing to the height of sive, or six feet, before it flowers. It is a native of Jamaica, and most of the adjacent islands, and was introduced by Messis. Lee and Kennedy about the year 1792. From the extreme tenderness of the young leaves, and shoots, it must be kept in a strong growing pine heat during the winter months; otherwise, they are subject to damp off. It is raised by cuttings, and seems to delight in a rich soil. The sigure was made from a specimen communicated by the Right Hon. Lord Viscount Courtenay, in whose most superb collection at Powderham Castle, near Exeter, it slowered, for the first time in England, in the month of September 1798.

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PLATE L.

IXIA CAPITATA. Var. flore aurantio.

Bunch-flowering Ixia. Var: Blossom gold colour.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens, æqualis. Stigmata tria, erectiusculo-patula.

BLOSSOM fix petals, spreading, and equal. Summits three, nearly upright, and spreading.

See Plate XIV. IXIA REFLEXA.

SPECIFIC CHARACTER.

Ixia foliis radicalibus, enfiformibus; floribus capitatis, confertis, aurantiis, petalis bafi obfcuris.

Ixia with leaves growing from the root, and fword-shaped; blossoms grow in a close bunch, gold coloured, and the petals dark at the base.

REPERENCE TO THE PLATE.

- 1. The two Sheaths of the Empalement.
- 2. A Flower cut open, with the Chives attached.
- 3. The Shaft, Summit, and Seed-bud, (magnified).

This variety of Ixia capitata was introduced at the same time as the Ixia bulbifers, flore luteo, viz. in 1784, by Messirs. Lee and Kennedy, Hammersmith, from the Cape of Good Hope, and requires the same treatment. It slowers the latter end of May, or beginning of June; propagating itself abundantly by the root, which produces annually numerous young bulbs.

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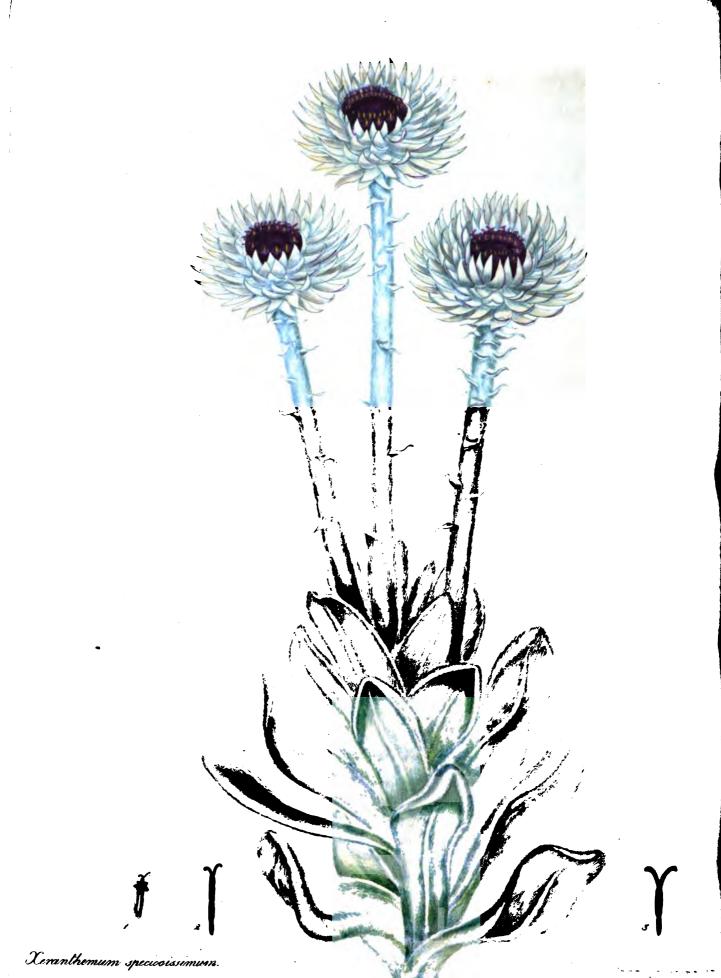


PLATE LI.

XERANTHEMUM SPECIOCISSIMUM.

Largest-flowering Everlasting Flower.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. Communis imbricatus; fquamis lanceolatis, quarum intimæ difco longiores, membranaceæ, nitidæ, radium constituentes.

COROLLA. Composita inæqualis; corollulæ hermaphroditæ plurimæ, tubulosæ in disco. Femineæ pauciores, tubulatæ, in ambitu.

Propria hermaphroditis infundibuliformis, calyce longe brevior; limbo quinquefido, patulo.

Femineis tubulofa, longitudine hermaphroditi, quinquefida, minus æqualis.

STAMINA. Hermaphroditis filamenta quinque, brevissima. Antheræ cylindracea, tubulosa longitudine fere corollulæ.

PISTILLUM. Hermaphroditis germen breve. Stylus filiformis, flaminibus longior. Stigma bifidum.

Femineis germen ut in hermaphroditis. Stylus filiformis, longitudine hermaphroditorum. Stigmata duo, oblonga reflexat

Pericarpium nullum. Calyx vix mutatus.

SEMINA oblonga, coronata.

RECEPTACULUM nudum, planiusculum, punctatum. EMPALEMENT. Common tiled; scales spear-shaped, the inner ones longer than the disk, skinny, shining, and forming the ray of the flower.

BLOSSOM. Compound, unequal; florets with chives and pointals numerous and tubular in the disk. Female florets fewer, and tubular in the circumference.

> Individuals with chives and pointals funnelfhaped, much shorter than the empalement; border with five clefts, spreading.

Individuals with only pointals, tubular the length of the hermaphrodites, five cleft, and rather smaller.

CHIVES. The threads in the hermaphrodites are five, and very finall. Tips forming a cylinder, tubular almost the length of the florets.

POINTAL. Seed bud of the hermaphrodites fhort. Shaft thread-flaped, longer than the chives. Summit cloven.

Seed-bud of the female florets the fame as the hermaphrodites. Shaft thread-shaped the length of the hermaphrodites. Summits two, oblong and bent back.

SEED-VESSEL none. Empalement fearcely changing.

SEEDS oblong, and crowned with a feather. RECEPTACLE naked, flatifh, and dotted.

SPECIFIC CHARACTER.

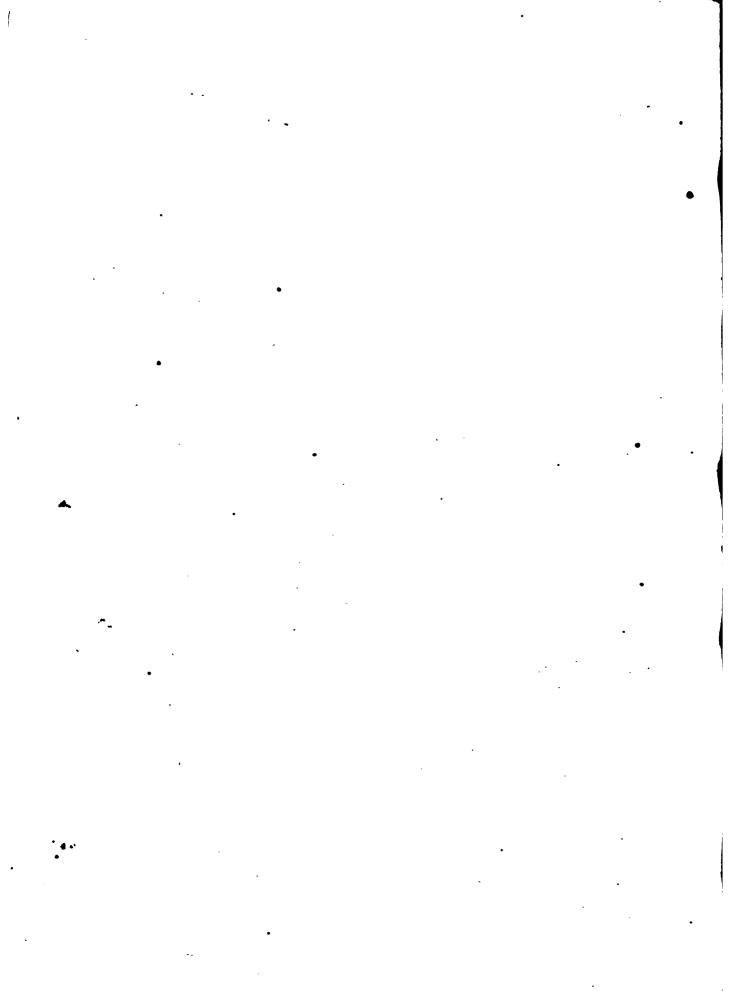
Xeranthemum fruticosum, erectum; foliis amplexicaulibus, lanceolatis, trinerviis; ramis unifloris, subundis.

Everlafting flower with an upright shrubby stem; leaves embracing the stem, lance-shaped, and three-nerved; branches with one slower, and nearly naked.

REFERENCE TO THE PLATE.

- 1. An Hermaphrodite floret, (natural fize).
- 2. The Chives, Pointal, and Seed-bud, (magnified).
- 3. The Pointal, and Seed-bud from a female floret, (magnified).

This handsome species of Xeranthemum was introduced, according to the Kew catalogue, by Mr. F. Masson from the Cape of Good Hope, in the year 1787; it is, nevertheless, a very scarce plant, being subject to decay from our winter damps; therefore requires a dry stove for its protection. The blossoms (or rather the flower-cups, for they are the persistent parts) are easily preserved for many years, in all their brilliancy, by cutting them, when they first expand; but our atmosphere seems uncongenial to the ripening of their seeds, and is with great difficulty increased by cuttings. The soil it most approves is sandy peat, with a small portion of loam. Our figure was taken in September last year, at the Hammersmith nursery.



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PLATE LII. GNIDIA PINIFOLIA.

Pine-leaved Gnidia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

Calvx. Perianthium monophyllum, infundibuliforme, coloratum; tubo filiformi, longissimo; limbo quadripartito, plano.

COROLLA. Petala quatuor, sessilia, plana, calyce breviora, eique inserta.

STAMINA. Filamenta octo, fetacea, erecta, longitudine fermè fioris. Antheræ fimplices.

Pistillum. Germen ovatum. Stylus filiformis, germinis lateri infertus, longitudine ftaminum. Stigma capitatum, hispidum.

Pericarpium nullum. Fructus in fundo calycis.

SEMEN unicum, ovatum.

EMPALEMENT. Cup one leaf, funnel-shaped and coloured; tube thread-shaped, very long; border of four segments, which are flat.

BLOSSOM. Petals four, fitting close to the cup, flat, shorter than the cup, and fixed within it.

Chives. Threads eight, awn-like, upright, fcarcely the length of the flower. Tips fimple.

POINTAL. Seed-bud egg-shaped. Shaft threadshaped, fixed into the fide of the seed-bud, and of the length of the chives. Summit headed, and hairy.

SEED-VESSEL none. Fruit in the lower part of the cup.

SEED one, egg-shaped.

SPECIFIC CHARACTER.

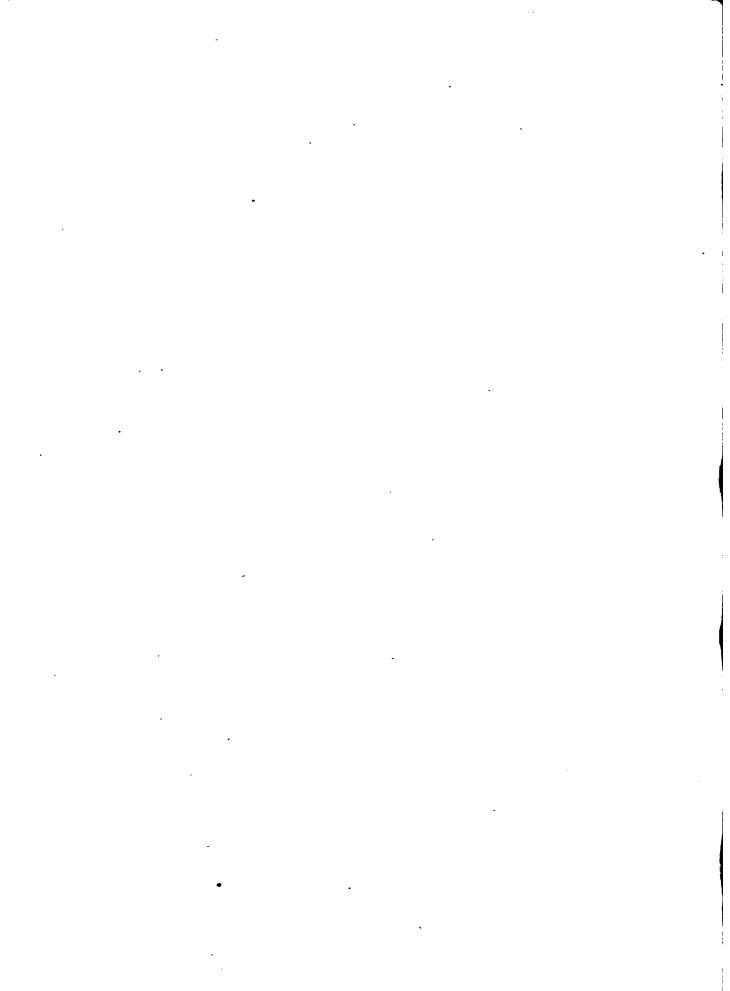
Gnidia, foliis sparsis, lineari-subulatis; ramis verticillatis; floribus aggregatis, terminalibus. Gnidia with scattered, linearly awl-shaped leaves; branches grow in whorls; the flowers terminating the branches in clusters.

REFERENCE TO THE PLATE.

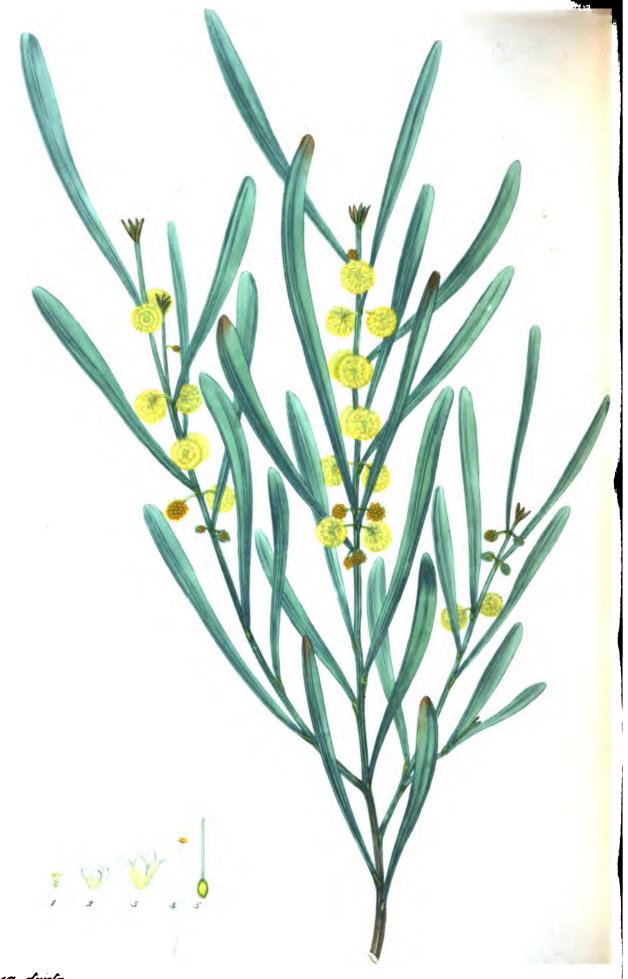
- 1. A Flower with its feed, (natural fize).
- 2. The same cut open, to shew the situation and insertion of the Chives into the tube of the Empalement.
- 3. The Pointal, (magnified).

THE effential diftinguishing character, in Pafferina, Gnidia, Struthiola, and Lachnea, must certainly be confidered as amongst the slightest generic divisions made by Linnæus. It is no small difficulty to diffinguish the blossom in Gnidia, and Lachnæa, from the empalement in Passerina, and Struthiola; the same exact natural structure being alike in them all; and to us, appear noticeable in their small variations, rather as forming specific, than generic distinctions. As our plan is not to alter, upon any terms, what has been determinately settled by that great master in the arcana of nature, let our opinions be what they will; we are determined to prevent confusion (which has been but little attended to of late), to give it only as fuch, without prefuming upon alteration. But as in the prefent instance, when a plant long named, but otherwise unknown to cultivators, has unfortunately been foisted from its rank by another, no ways answering to the characters of the describer; we shall confider it as our particular province to rectify the mistake, however generally the error may have obtained .- The Gnidia pinifolia is a native of the Cape of Good Hope, the feeds having been received from thence in 1795, by Messrs. Lee and Kennedy, Hammersmith, at whose nursery it has flowered, for the first time in England, in the month of February this year, and where the drawing was taken. It is a hardy greenhouse plant, but is propagated with difficulty by cuttings; growing to the height of eighteen inches, being most exquisitely scented by night, continuing in flower at least three months, and thriving best in a light peat soil.

A figure of the plant generally known by the name of G. pinifolia, will be given with the next number, to the end our affertions may be properly investigated.



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Mimosa struta

PLATE LIII.

MIMOSA STRICTA.

Harsh-leaved upright Mimosa.

CLASS XXIII. ORDER I.

POLYGAMIA MONOECIA. Various dispositions. Upon one Plant.

GENERIC CHARACTER.

PERIANTHIUM monophyllum, quinquedentatum, minimum.

COROLLA. Petalum unicum, infundibuliforme, semiquinquefidum, parvum.

STAMINA. Filamenta capillaria; longissima. Antheræ incumbentes.

PISTILLUM. Germen oblongum. Stylus filiformis, flaminibus brevior. Stigma trunca-

Pericarpium. Legumen longum, dissepimentis transversis, pluribus.

SEMINA plurima; figura varia.

EMPALEMENT. One leaf, five-toothed, and very

BLOSSOM. One petal, funnel-shaped, cut half way down into five divisions, and small.

CHIVES. Threads like fine hairs, and very long. Tips laying on the threads.

POINTAL. Seed-bud oblong. Shaft threadshaped, shorter than the chives. Summit appearing cut off..

SEED-VESSEL. A long pod, the partitions run across the pod, and are numerous.

SEEDS many; of different shapes.

SPECIFIC CHARACTER.

Mimofa foliis fimplicibus, utrinque venofis, linearibus, obtufis; ramis strictissimis; capituli geminati, oppofiti, ex alis foliorum.

Mimofa with fimple leaves, veiny on both fides, linear, and blunt ended; branches growing close and upright; flower heads grow by pairs, opposite, and at the insertion of the leaf into the stem.

REFERENCE TO THE PLATE.

- 1. A Floret, (natural fize).
- 2. The Empalement, (magnified).
- 3. The Bloffom, (magnified).
- 4. One Thread and its Tip, (magnified).
- 5. The Pointal, (magnified).

This species of New Holland Mimosa, has as yet, escaped even the indefatigable, and accurate Dr. Smith; it is from Port Jackson, whence the seeds were transmitted by Colonel Paterson in the year 1703. Being eafily raifed, it is found in most collections; the feeds preserving their vegetative quality many years, and striking readily by cuttings. It has the peculiar character attached to the Mimosas of that country, viz. winged feed-leaves, which are loft after the first year's growth. This species has no fmell, and grows to the height of three or four feet before it flowers; perfectly straight and compact, from which circumstance we have taken its trivial name.

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Metris sarmentosa.

PLATE LIV.

ALETRIS SARMENTOSA.

Creeping-rooted Bastard Aloe.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

GENERIC CHARACTER.

CALYX, nullus.

Corolla, monopetala, oblonga; limbi laciniis lanceolatis, acuminatis, erectis; perfistens.

STAMINA. Filamenta sex, subulata, longitudine corollæ, inserta basi laciniarum corollæ. Antheræ oblongæ, erecæ.

PISTILLUM. Germen ovatum. Stylus fubulatus, longitudine ftaminium. Stigma trifidum.

Pericarpium. Capfula ovata, triquetra, acuminata, trilocularis.

SEMINA plurima.

EMPALEMENT, none.

BLOSSOM, one leaf, oblong; the fegments of the border are lance-shaped, tapering, and upright; remaining.

CHIVES. Threads fix, awl-shaped, the length of the blossom, and inserted into the divisions of it, at the base. Tips oblong, upright.

Pointal. Seed-bud egg-shaped. Shaft awlshaped, the length of the chives. Summit three-cleft.

SEED-VESSEL. 'Capfule egg-shaped, three-fided, tapered, and of three cells.

SEEDS many. -

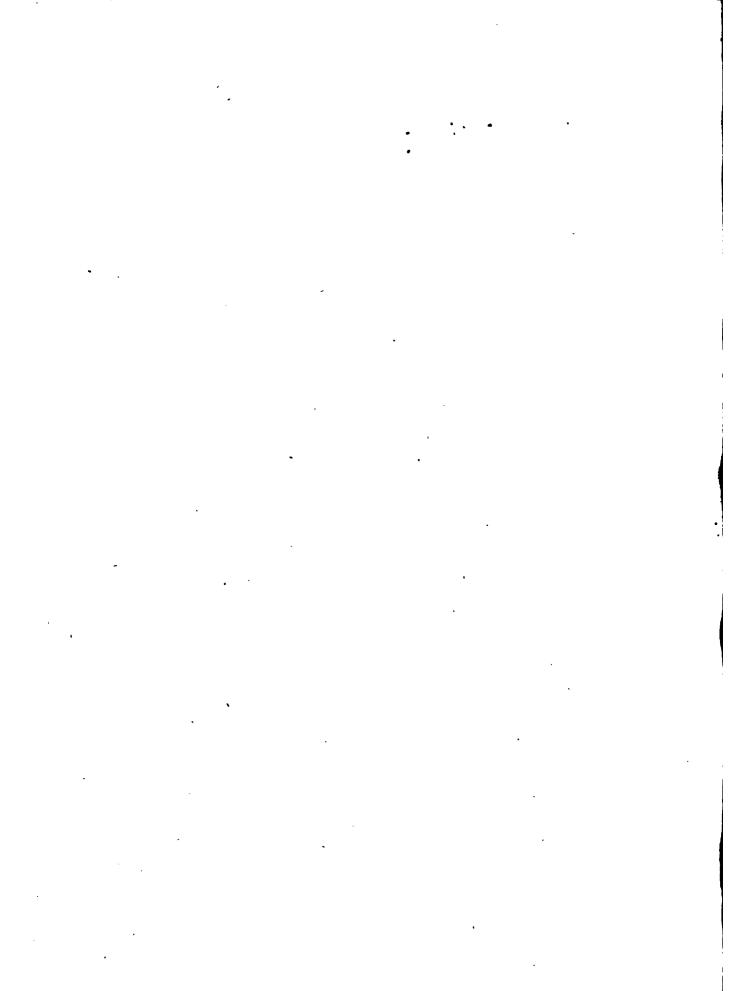
SPECIFIC CHARACTER.

Aletris, acaulis; foliis enfiformibus, laxis; floribus spicatis, suave rubentibus; radicibus farmentosis. Baftard Aloe, without a ftem; having fwordfhaped, weak leaves; flowers grow in fpikes of a foft red colour; roots producing fuckers from the joints.

REFERENCE TO THE PLATE.

- 1. A Flower.
- 2. The Chives, and Pointal.
- 3. The Pointal.

This species of Aletris was introduced to us, from the Cape of Good Hope, about the year 1789; it is a hardy plant, requiring the same management as Aletris Capensis, that is, to be kept in a dry part of the greenhouse; although the plant should be frequently watered when in bloom, as should mostly all plants, notwithstanding (as in the present instance is the case) their slowering in the winter months. This caution we have thought necessary, as it is a general rule with gardeners during that season, to put as little moss possible to their plants, whether in slower or not, to avoid damps. The little difficulty in propagating this handsome species of Aletris, will render it soon common; the roots grow nearly horizontally, and from their joints numberless young plants are produced; which character we were desirous of expressing in the sigure, as from thence we have taken our trivial name; but from the size of the work, it was found impracticable. The drawing was made in December 1798, from a plant then in slower, at the Hammersmith nursery: we are nevertheless informed, that from being planted in a light, rich soil, it may be made to grow to the height of three feet; with a spike of slowers, one sourth the length of the slower-stem.



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PLATE LV. ZINNIA VIOLACEA.

Purple Zinnia.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALYX. Communis ovato-cylindricus, lævis, imbricatus; fquamis plurimis, obtufis, erectis, persistentibus.

COROLLA. Composita radiata; corollulæ hermaphroditæ plures in disco elevato. Femineæ plurimæ in radio.

Propria hermaphroditi infundibuliformis, quinquefida intus villofa.

Feminea ligulata, subrotunda, retusa, per-

STAMINA. Hermaphroditis; filamenta quinque, breviffima. Anthera cylindracea, tubulofa.

Pistillum. Hermaphroditis; germen oblongum, triquetrum. Stylus filiformis, femibifidus. Stigmata duo, obtufa.

Femineis; germen oblongum, triquetrum. Stylus capillaris, semibifidus. Stigmata duo, recurvata.

PERICARPIUM. Calyx immutatus.

SEMINA. Hermaphroditis folitaria, oblonga, tetragono-ancipitia. Pappus muconibus duobus.

Femineis folitaria, mutica, coronata petalo perfistente.

RECEPTACULUM paleaceum; paleis lingulatis, canaliculatis, longitudine calycis, deciduis.

EMPALEMENT. Common cylindrically eggfhaped, fmooth, and tiled; fcales many, blunt, upright, and remaining.

BLOSSOM.. Compound radiate; florets with chives and pointals, are numerous in the center, which is elevated; florets with only pointals, many in the circumference.

Individuals with chives and pointals funnelshaped, five-cleft, and hairy within.

Individuals with pointals only, ligulate, roundish, dented at the end, and remaining.

Chives. Hermaphrodites; five flort threads.

Tips forming a hollow cylinder.

Pointal. Hermaphrodites; feed-bud oblong, three-fided. Shaft thread-shaped, split nearly half way down. Summits two, blunt. Females; feed-bud oblong, three-fided. Shaft hair-like, split half way down. Summits two, bent backward.

SEED-VESSEL. Cup not changing.

SEEDS. Hermaphrodites; folitary, oblong, three-fided, but sharp at two edges. Feather of two sharp points.

Females, folitary, without points, being crowned with the perfiftent petal.

RECEPTACLE chaffy; chaff tongue-shaped, channelled, the length of the cup, and falling off.

SPECIFIC CHARACTER.

Zinnia foliis oppositis, amplexicaulibus, latolanceolatis, scabris; floribus pedunculatis, purpureis, solitariis. Zinnia with opposite leaves, embracing the stem, broadly lance-shaped, and rough; slowers have foot-stalks, are purple, and grow solitary.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Floret of the ray with the feed attached, (natural fize).
- 3. A Floret of the disk with the seed attached, (magnified).
- 4. The Chives and Pointal of an hermaphrodite floret
- 5. The chaffy substance dividing the florets.

This elegant new species of Zinnia, is described and figured by J. A. Cavanilles, in his first volume of Spanish plants; where he says, it is a native of Mexico, South America, and was transmitted from thence to the royal gardens, where it perfected its seeds. In the year 1796, the Marchioness of Bute received it amongst many other curious seeds, from Madrid, through the medium of Professor Ortega. Being rather a tender annual, it should be sown in March, on a gentle hotbed; and transplanted into the open borders the beginning of May. The plant grows to the height of three feet or more, and makes in the months of August and September, a very considerable addition to the splendor of the flower garden. The seeds ripen freely, though the flower should be plucked before it appears decayed.

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PLATE LVI.

ANTHOLYZA SPICATA.

Spike-flowered Antholyza.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA tubulofa, irregularis, recurvata. Capfula infera. BLOSSOM tubular, irregular, and bent backward.
Capfule beneath.
See Plate XXXII. ANTHOLYZA RINGENS.

SPECIFIC CHARACTER.

Antholyza, floribus infundibuliformibus, spicatis, incarnato-pallidis; foliis falcatis, brevissimis. Antholyza with funnel-shaped, spiked flowers, of a pale flesh colour; leaves scimitar-shaped, and very short.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Blossom cut open, to shew the insertion of the Chives.
- 3. The Pointal, (natural fize).

THERE are few species of this genus but furnish beautiful flowers; this is certainly among the most handsome, from the softness of its colour, and the regularity of the spike: what adds considerably to its merit, is, that the blossoms remain a considerable time before they fall, which unfortunately, is seldom the case with the slowers of this genus. It was received from the Cape of Good Hope in bulbs, sent by J. Pringle, Esq. of Madeira, in 1794, to Messirs. Lee and Kennedy of Hammersmith; the drawing was made in the month of June 1797 at their nursery. Not being easily injured by damp, there is no necessity for removing it from its pot, as is necessary for most bulbs, but to increase it; one, or two young bulbs being annually produced, in addition from the old one. The best soil is a sandy peat, with a small proportion of loam.

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PLATE LVII.

MESEMBRYANTHEMUM GLABRUM.

Smooth-leaved annual Fig Marygold.

CLASS XII. ORDER IV.

ICOSANDRIA PENTAGYNIA. Twenty Chives. Five Pointals.

GENERIC CHARACTER.

- CALYX. Perianthium monophyllum, femiquinquefidum, fuperum, patens, perfiftens.
- COROLLA. Monopetala; petala lanceolato-linearia, numerofissima, serie multiplici nata, calyce longiora, unguibus læviter connatis in unum.
- STAMINA. Filamenta numerofa, capillaria, longitudine calycis. Antheræ incumbentes.
- PISTILLUM. Germen inferum, angulis quinque, obtufis. Styli quinque fæpius, fubulati, erecto-reflexi. Stigmata fimplicia.
- Pericarpium. Capfula carnofa, fubrotunda, loculamentis numero ftylorum respondentibus.
- SEMINA plurima, fubrotunda.

- EMPALEMENT. Cup one leaf, cut nearly half way down into five divisions, above, spreading, and remaining.
- BLOSSOM. One petal; petals linearly lancefhaped, very numerous, rifing in a number of rows, longer than the cup, flightly joined together by their claws.
- Chives. Threads numerous, hair-like, the length of the cup. Tips laying on the threads.
- POINTAL. Seed-bud beneath, with five obtufe angles. Shafts mostly five, awl-shaped, upright, and a little bent outwards. Summits simple.
- SEED-VESSEL. A fleshy capfule, nearly round, the cells answering to the number of the chives.
- SEEDS many, nearly round.

SPECIFIC CHARACTER.

- Mesembryanthemum foliis amplexicaulibus, glaberrimis, spathulatis; pedunculis longitudine foliorum; calycibus hemisphæricis; corollis luteis.
- Fig Marygold with leaves embracing the ftem, very smooth, and spatula-shaped; the foot-stalks the length of the leaves; cups hemispherical; blossoms yellow.

REFERENCE TO THE PLATE.

- 1. A Seed-bud; the Bloffom, Cup and Chives, cut off, the Pointals remaining.
- 2. The same, with the Cup and Chives.

As the extreme brilliancy of this plant cannot be done justice to in painting, we must rest satisfied with having done our best; every person in the least acquainted with the art, must know, that in yellow the shining colour existing in nature cannot be retained in a drawing. This species is annual, and according to the Kew Catalogue, was introduced to the royal gardens by Mr. F. Masson in the year 1787. The seeds should be sown on a hotbed in the month of February, and by the end of August the plants will slower, and continue to blossom till the end of October; never failing to persect their seeds.

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Boronia pin uch

PLATE LVIII. BORONIA PINNATA.

Hawthorn-scented Boronia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium quadripartitum; laciniis acutis, perfistentibus.

COROLLA. Petala quatuor, ovata, sessilia.

Nectarium coronæ forma, excavatum, glandulofum.

STAMINA. Filamenta octo, plana, ciliata, incurvata, receptaculo inferta. Antheræ infra apicem filamentorum pedicillatæ, incumbentes.

PISTILLUM. Germen superum, conicum, quadrifulcatum. Stylus brevissimus, simplex. Stigma capitatum, glabrum, sulcatum.

Pericarpium. Capfulæ quatuor, ovato-acuminatæ, compressæ, margine introrsum coalitæ, apicibus distantibus, sutra superiori dehiscentes, bivalves.

Semina folitaria fæpius, nitida, reniformia, arillata.

EMPALEMENT. Cup with four divisions; fegments sharp pointed, and remaining.

BLOSSOM. Petals four, egg-shaped, fitting close to the cup.

Honey-cup of the shape of a crown, hollowed, and glandular.

Chives. Eight threads, flat, fringed, turned inwards, and fixed into the receptacle. Tips fixed below the ends on the infide of the threads, on short foot-stalks, and lying on them.

POINTAL. Seed-bud above, conical, and fourfurrowed. Shaft very short, and simple. Summit headed, smooth, and surrowed.

SEED-VESSEL. Capfules four, of a pointed eggfhape, diattened, joined by the interior edge, the points flanding feparate, splitting from the upper future, two-valved.

SEEDS mostly solitary, shining, kidney-shaped, and covered with an elastic coat.

SPECIFIC CHARACTER.

Boronia foliis impari-primatis, integerrimis; pedunculis axillaribus, dichotomis; filamentis apice obtufis, glandulofis. Boronia with leaves abruptly winged, entire; flower-stalks growing from the base of the leaves, forked; end of the threads blunt, and glandular.

REFERENCE TO THE PLATE.

- 1. The Empalement, (natural fize).
- 2. The Chives, and Pointal.
- 3. One Chive, (magnified).
- 4. The Pointal, and Honey-cup, (natural fize).

This is the only species yet in our gardens, of a most beautiful new genus of plants, natives of New South Wales; first named, described, and with three other species, figured in the Tracts relating to Natural History by Dr. J. E. Smith, F. R. S. P. L. S. &c. Thus eternizing the name of an esteemed and faithful servant, who by his ardour in botanical pursuits, had merited the honour; rejecting the usual confiderations, riches, or learning, does the Dr. no less credit as a man, for the kindness of his heart, than what his distinguished talents have gained him, by placing him in the first botanical seat in this kingdom. In the short history of the unfortunate end of Borone, the Dr. informs us, he had resigned him to Dr. Sibthorpe, as a most sit person to attend him in his last journey through Greece; where, at Athens, he met his death, by an accidental fall from a balcony: the Dr. did not long survive him.

The Boronia pinnata has much of the aromatic flavour of Diosma in its leaves and stem; the flowers, which appear about February, and continue till May, have the scent of the Hawthorn flower; it grows to a shrub of the height of eighteen inches, is propagated with difficulty by cuttings, and has not hitherto persected its seeds in this country; requiring a dry situation in the greenhouse, and flourishes most in light sandy peat. The figure was taken from a plant which slowered last year, in the nursery of Messrs. Lee and Kennedy, Hammersmith, where it was raised from seeds in 1794.

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PLATE LIX.

IXIA FISTULOSA.

Hollow-leaved Ixia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens æqualis. Stigmata tria, erectiusculo-patula.

BLOSSOM fix petals, spreading, equal. Summits three, nearly upright, and spreading.

See IXIA REFLEXA. Plate XIV.

SPECIFIC CHARACTER.

Exia foliis linearibus, fiftulofis; floribus fecundis, noctu fragrantes; bulbus campanulatus, margine acuto-fibrofo. Ixia with linear, hollow leaves; flowers pointing one way, and fragrant by night; bulb bellflaped, the margin edged with sharp fibres.

REFERENCE TO THE PLATE.

- 1. The outer fpath of the Empalement.
- 2. The inner spath of the Empalement.
- 3. A Flower cut open.
- 4. The Pointal, and Chives.
- 5. The Pointal.

This Ixia is of a very delicate nature, the root being subject to rot soon after the flower decays, if not then removed from its pot, and dried; the flowers expand about four o'clock in the afternoon, and are so extremely fragrant that they are smelt at a considerable distance. For this plant, our gardens are indebted to the Dowager Lady De Clifford, who received the bulbs from the Cape of Good Hope in the year 1794. The drawing was made from a plant, which flowered last year at Messrs. Lee and Kennedy's, Hammersmith, who had some of them in a present from her ladyship. Like other Ixias, it should be planted in light peat, and watered but seldom; its propagation is but flow, as seldom more than one new bulb is produced, upon the decay of the old one.

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Geranium punctatum.

PLATE LX.

GERANIUM PUNCTATUM.

Dotted-flowered Geranium:

CLASS XVI. ORDER IV. Suppl. System. Veget. 1781.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

Monogyna Stigmata 5. Fructus roftratus, 5-coccus.

ONE POINTAL. Five fummits. Fruit furnished with long awns, five dry berries.

See Geranium grandiflorum, Plate XII.

SPECIFIC CHARACTER.

Geranium foliis radicalibus; floribus umbellatis, diandris; petalis duobus fuperioribus punctatis; stigmata quatuor. Geranium with leaves growing from the root; flowers grow in umbels, two fertile chives; the two upper petals being dotted; fummits four.

REFERENCE TO THE PLATE.

- 1. The Empalement cut open, with the Chives and Pointal left on, (natural fize).
- 2. The Threads cut open, to shew their number, and the situation of the two sertile ones, (magnified).
- 3. The Pointal, (magnified).

PERHAPS amongst plants, there is no genus exhibits such varied and numerous species as Geranium; no one, in which the species are so allied in natural character, or so unfavourable to the sexual system, if some deviation from general rules was not allowed: the sounder thought such licence necessary, and we implicitly follow him. Thus far we have thought proper to extenuate in the present instance; for should we follow Mons. L'Heritier, (as most of the modern correctors of Linnæus have done,) a new genus must inevitably be formed for this plant. Upon a close examination of the flowers, from a dozen different plants, invariably, only seven threads were found; two only with tips, and those placed immediately behind the shaft, whose summits were but four. This Geranium is rather tender, and requires a dry-stove heat to make it flower, which it will readily do with such affistance, in April; about the beginning of which month, this year, a drawing was made from a plant in the collection of Messirs. Lee and Kennedy. The roots or bulbs of this plant were first received in England by Thomas Johnes, Esq. in the year 1794, in whose magnificent conservatory at Havod they flowered the next year.

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PLATE LXI. ASTER DENTATUS.

Toothed-leaved Starwort.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

GENERIC CHARACTER.

CALTX. Commonis squamoso-imbricatus; squamis interioribus apice prominulis.

COROLLA. Composita radiata; corollulæ hermaphroditæ numerosæ in disco; femineæ ligulatæ, decem pluresán radio.

> Propria hermaphroditi infundibuliformis; limbo quinquefido, patulo.
>
> Femines ligulata, lanceolata, tridentata.

STAMINA. Filamenta quinque, capillaria, brevissima. Anthera cylindracea, tubulosa.

PISTILLUM. Hermaphroditis; germen oblongum. Stylus filiformis, longitudine flaminum. Stigma bifidum, patens.

Femineis; germen oblongum. Stylus filiformis, longitudine hermaphroditi. Stigmata duo, oblonga, revoluta.

Pericarpium nullum. Calyx vix mutatus.

Semima. Hermaphroditis folitaria, oblonga, ovata. Pappus pilofus.

Femineis fimilia hermaphroditis.

RECEPTACULUM nudum, planinfculum.

EMPALEMENT. Common, feales tiled; the inner scales standing a little out at the points.

BLOSSOM. Compound, radiate; florets with chives and pointals, many in the center; florets with only pointals, ligulate, ten or more in the circumference.

Individuals with chives and pointals, funnelfhaped; border with five-clefts, spreading. Individuals with only pointals, ligulate, spear-shaped, with three teeth.

CHIVES. Five hair-like threads, very thort.
Tips forming a hollow cylinder.

POINTAL. To those with chives and pointals, feed-bud oblong. Shaft thread-shaped, the length of the chives. Summit two-cleft, expanding.

Seed-bud to those with pointals only, oblong. Shaft thread-shaped, the length of the hermaphrodites. Summits two, oblong, bent back.

SEED-VESSEL none. Cup fearcely changing.

SEEDs to the hermaphrodites folitary, oblong, egg-shaped. Feather hairy.

Females the same as hermaphrodites.

RECEPTACLE naked, almost flat.

SPECIFIC CHARACTER.

After caulis fruticofus; foliis dentatis, fultus ferrugineis; floribus terminalibus; pedunculis unifloris, bracteatis.

Starwort with a fhrubby ftem; leaves toothed, iron colour beneath; flowers terminate the branches; fruit-ftalks having but one flower, with floral leaves.

REFERENCE TO THE PLATE.

- 1. A Floret of the circumference.
- 2. The Pointal of the preceding.
- 3. A Floret of the center, (magnified).
- 4. The Chives and Pointal of the preceding, (magnified).
- 5. The Shaft and Summit of the same, (magnified).

This plant cannot undoubtedly be confidered as amongst the most beautiful of the vegetable productions of New Holland; but nevertheless, from the continuance of its flowering, is very desirable as a greenhouse plant, as it begins to expand its blossoms about December, and from that time till August is seldom seen without flowers. It is a low-growing shrub, seldom exceeding a foot in height, and very branching. Like most plants from Botany Bay, it delights in a light sandy peat soil, is easily propagated by cuttings, and seeds. The drawing was made from a plant in the nursery of Messis. Lee and Kennedy, who raised it first from seeds in the year 1793.

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PLATE LXII.

GLADIOLUS GRAMINEUS.

Grass-like Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA fexpartita, ringens. STAMINA adfeendentia.

Blossom with fix divisions, gaping.
Chives ascending.
See Gladiolus longiflorus. Plate V.

SPECIFIC CHARACTER.

Gladiolus polystachyus, scapo laxo, spicis capillaribus, slexuosis; foliis ensisormibus; corollæ sexpartitæ, absque tubo. Gladiolus with many spikes, upon a flexible flower stem, spikes hair-like, growing zigzag; leaves sword-shape; blossom of six divisions, without a tube.

REFERENCE TO THE PLATE.

- 1. The two sheaths of the Empalement.
- 2. The Seed-bud, Chives, and Pointal (magnified).
- 3. The Pointal, (magnified).

This species of Gladiolus has been described by Thunberg, and from him by Linnseus, in his Suppl. Plant. p. 95, under the specific name it here bears. It is a little straining on the genus to introduce this species into it; as it is described in most of the essential characters; having a blossom without a tube, and the petals equal. From the Kew Catalogue we learn it was introduced in the year 1787, by Mr. F. Masson, to the royal gardens; is there said to slower most part of the year: a plant of such character is most desirable, but unfortunately we have never seen it in blossom but at the usual season for the flowers of this tribe; that is, from April till June. The capsules of this plant bear a strong resemblance to those of the Euonymus: generally persecting their seeds. It is a very hardy bulb, blows early, and may be kept in a pit protected from the frost.

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PLATE LXIII.

USTERIA SCANDENS.

Climbing Usteria.

CLASS XIV. ORDER II.

DIDYNAMIA ANGIOSPERMIA. Two Chives longer. Seeds covered.

GENERIC CHARACTER.

- CALYX. Perianthium monophyllum, quinquepartitum, perfistens; laciniis erectis, subulatia.
- COROLLA. Monopetala, ringens, tubus ventricofus, bafi arcta; limbus bilabiatus, labium fuperius bifidum, rotundatum, reflexum; labium inferius trifidum, laciniis rotundatis, intermedia minore,
- STAMINA. Filamenta quatuor, fub labio fuperiori recondita, quorum duo lateralia longiora, fundo corollæ inferta, bafi incraffata, lanata, apice incurvata. Antheræ erectæ, versatiles, approximatæ.
- PISTILLUM. Germen fub-rotundum. Stylus filiformis, perfishens; longitudine staminum. Stigma obtusum.
- Pericarpium. Capíula fub-rotunda, bilocularis, calyce longior, obtuía.
- SEMINA plurima, sub-rotunda, scabrida.

- EMPALEMENT. Cup one leaf, five divisions, permanent; fegments upright, and awl-fhaped.
- BLOSSOM. One leaf, gaping, tube swelled out in the middle, and pinched in at the base; border with two lips, the upper divided into two lobes, which are rounded, and bent back; the lower has three divisions, the segments rounded, the middle one the smallest.
- CHIVES. Threads four, hid under the upper lip, of which the two fide ones are the longest, fixed into the bottom of the blossom, thickened at the base, woolly, and turned inward at the point. Tips upright, slightly fixed by the middle, and approaching.
- POINTAL. Seed-bud nearly round. Shaft threadfhaped, remaining, the length of the chives. Summit blunt.
- SEED-VESSEL. Capfule nearly round, of two cells, longer than the cup, blunt ended.

 SEEDS many, almost round, and very rough.

SPECIFIC CHARACTER.

- Usteria caulis volubilis; foliis hastatis; sloribus solitariis, purpureis; pedunculis tortis, longistimis.
- Ufteria with a climbing stem; leaves helbertshaped; slowers solitary, and purple; fruitstalks twisted, very long.

REFERENCE TO THE PLATE.

- 1. A Bloffom cut open, to expose the fituation of the Chives.
- 2. One Chive, (magnified).
- 3. The Pointal, (natural fize).
- 4. The Empalement, and Seed-veffel nearly ripe, of its natural fize.

This is another of those plants raised in the year 1797 by the Marchioness of Bute, at her charming little villa, Brompton, from seeds, sent to her ladyship from Spain by Dr. Ortega. It is a native of Mexico, North America, and will live through our winters with the protection of a greenhouse, to which it forms a beautiful ornament as a creeper; flowering from May till September, but does not appear to be a long-lived plant; is easily propagated by cuttings, or from seeds, which are ripened by November, or earlier; thriving best in light rich earth.

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PLATE LXIV.

PÆONIA ALBIFLORA.

White Pæony.

CLASS XIII. ORDER II.

POLYANDRIA DIGYNIA. Many Chives. Two Pointals.

GENERIC CHARACTER.

- CALVX. Perianthium pentaphyllum, parvum, perfistens; foliolis subrotundis, concavis, reflexis, inequalibus magnitudine et situ.
- COROLLA. Petala quinque, subrotunda, concava, basi angustiora, patentia, maxima.
- STAMINA. Filamenta numerosa, capillaria. Antheræ oblongæ, quadrangulæ, erecæ, quadriloculares, magnæ.
- Pistillum. Germina duo, ovata, erecta, tomentosa. Styli nulli. Stigmata compressa, obtusa, colorata.
- Pericarium. Capfulæ oblongæ, acuminatæ, reflexo-patentes, tomentofæ, uniloculares, univalves, longitudinaliter introrfum dehifeentes.
- Semina plura, ovalia, nitida, colorata, faturæ dehiscenti affixa.

- EMPALEMENT. Cup five-leaved, fmall, and remaining; leaves roundish, concave, bent back, and unequal both in fize and situation.
- BLOSSOM. Petals five, roundish, concave, smaller at the base, spreading, and very large.
- Chives. Threads numerous, and hair-like. Tips oblong, four-fided, upright, with four cells, and large.
- POINTAL. Seed-buds two, egg-shaped, upright, and downy. Shaft none. Summits flattened, oblong, blunt, and coloured.
- SEED-VESSEL. Capfules oblong, tapered, bent back, and fpreading, downy, of one cell, and one valve, fplitting lengthways from the inner part.
- SEEDS many, oval, shining, coloured, and fixed to the suture where it splits.

SPECIFIC CHARACTER.

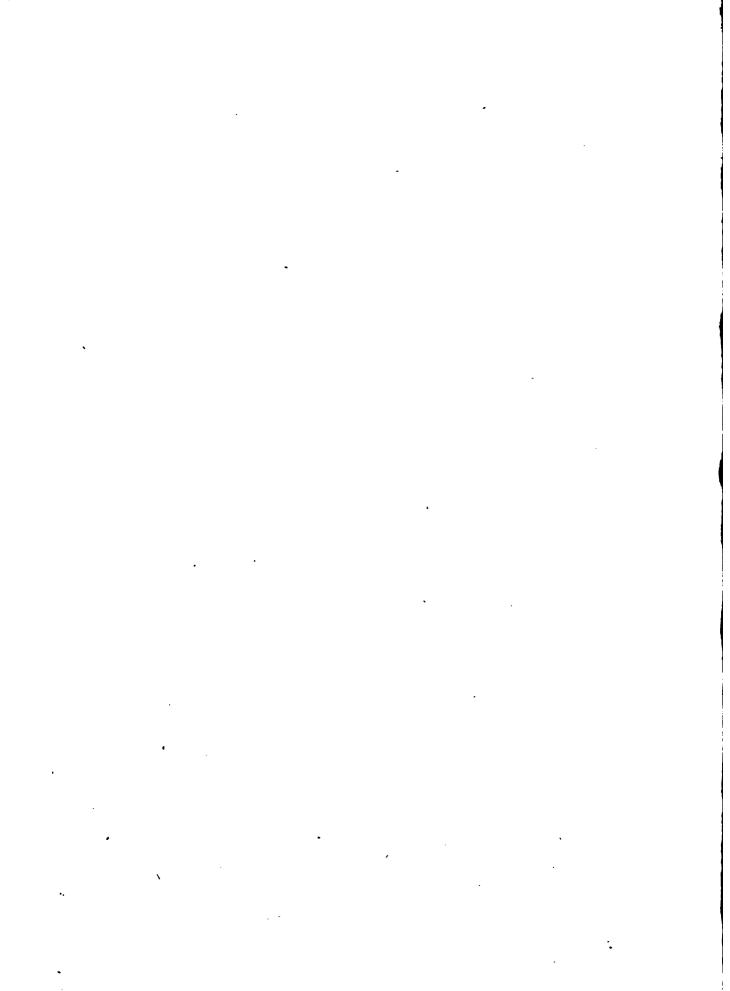
Pæonia foliis lobatis, nitentibus; corollis albidis; germinibus ternis, vel quaternis.

Pæony with leaves divided into lobes, and fhining; bloffoms white; feed-buds three, or four.

REFERENCE TO THE PLATE.

- 1. The Empalement, Chives, and Pointals.
- 2. A Thread and its Tip (magnified).
- 3. The Seed-veffels.
- 4. A Seed.

This new species of Pæony is a native of Mongol Tartary, and the parts adjacent; of course, is sufficiently hardy to endure our severest winters. It has been described by Gmelin, in his Flora Sibirica; and figured by Dr. Pallas, in his Flora Rossica, under the specific title it here bears. J. Bell, Esq. of Isleworth, procured some plants of it from St. Petersburg, about the year 1791; where it had been introduced by Dr. Pallas some time before, when on his travels through Tartary. It forms a hand-some, upright growing, herbaceous plant; the slowers standing much above the foliage, are much handsomer before they are expanded, than when fully so; as the under part of the petals are tinged with red, which contrasted with the purity of the white of the other parts, renders them at that period extremely beautiful. The figure was taken at the nursery of Messrs. Lee and Kennedy, this year, in the month of June, during which month it is in persection. Like the rest of the Pæonies, it is easily propagated by the root; requiring little attention in its cultivation, as it will live in almost any soil or situation.



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Ophrys lilifolia.

PLATE LXV.

OPHRYS LILIFOLIA.

Lily-leaved Ophrys.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

GENERIC CHARACTER.

CALYX. Spathæ vagæ. Spadix fimplex. Perianthium nullum.

COROLLA. Petala quinque, oblonga, furfum conniventia, æqualia; duo horum exteriora.

Nectarium petalis longius, dependens; postice tantum carinatum.

STAMINA. Filamenta duo, brevissima, pistillo insidentia. Antheræ erecæ, tecæ margine interiore nectarii.

Pistillum. Germen oblongum, contortum, inferum. Stylus margini interiori nectarii adnatus. Stigma obsoletum.

Pericarpium. Capfula fubovata, trigona, obtufa, firiata, trivalvis, unilocularis, angulis carinatis dehiscens.

SEMINA numerofa, fcobiformia.

RECEPTACULUM lineare, adnatum fingulæ valvulæ pericarpii. EMPALEMENT. Sheaths scattered. Fruit-stalks fimple. Cup none.

Blossom. Five petals, oblong, approaching upwards, equal; two of them placed outwards.

Honey-cup longer than the petals, hanging down; only keeled on the back part.

CHIVES. Two threads, very short, fixed to the pointal. Tips upright, covered by the inner edge of the honey-cup.

POINTAL. Seed-bud beneath, oblong, twisted beneath. Shaft fixed to the inner edge of the honey-cup. Summit imperfect.

SEED-VESSEL. Capfule nearly egg-shaped, three-fided, blunt, channelled, three-valved, and one cell, opening at the keel-shaped angles.

SEEDS numerous, like faw-duft.

RECEPTACLE linear, growing to each valve of the feed-veffel.

SPECIFIC CHARACTER.

Ophrys bulbo subrotundo; scapo nudo; foliis ovato-oblongis, radicalibus; nectarii labio integro; petalis dorsalibus linearibus.

Ophrys with roundish roots; stem naked; leaves oblong, egg-shaped, growing from the root; the two back petals linear.

REFERENCE TO THE PLATE.

- 1. The Honey-cup cut off the bloffom.
- 2. The Seed-bud and Pointal (natural fize) shewn fideways.
- 3. The same (magnified) shewn in front, with the cap listed up, to expose the parts of fructification.

GRONOVIUS, in his arrangement of the plants discovered by Mr. J. Clayton in Virginia, P. i, page 185, has described this plant; and Linnæus after him, in his second edition of the Species Plantarum, page 1341, has it likewise, but thought it only a large variety of a species found in marshy grounds in Sweden; however that may be, it is perfectly new to Britain, as a plant in our gardens. This species of Ophrys seems much more easy to preserve than most of its congeners, as, since its introduction, the bulbs seem to acquire additional fize, and the spikes of flowers to grow larger each year. Our drawing was taken from a plant in the extensive collection of the Right Hon. the Marquis of Blandford, Bill-hill, Berkshire, in the year 1797, about the beginning of the month of July; having been sent the preceding year from Philadelphia, by J. Lyons, gardener to William Hamilton, Esq. of that State. It is a hardy plant, and will thrive in a sheltered border, if planted in light earth, and kept moss; is propagated but slowly by the root, which seems the only method; as the seeds are too small of all this natural order to raise them by that means.

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PLATE LXVI.

GLADIOLUS POLYSTACHIUS.

Branching Gladiolus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, ringens. STAMINA adfeendentia.

BLOSSOM of fix divitions, and gaping.
CHIVES afcending.
See Plate XI. GLADIOLUS ROSEUS.

SPECIFIC CHARACTER.

Gladiolus foliis falcatis; caule polyftachio; corollis fub-regularibus, carneis.

Gladiolus with cymitar-shaped leaves; stem many branches; blossoms nearly regular, and sless colour.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Bloffom cut open, with the Chives attached.
- 3. The Pointal and Seed-bud, one fummit magnified.

This species of Gladiolus has been long known in herbariums, as it is very common about Table mountain, at the Cape of Good Hope; Jacquin, Thunberg, Gmelin, Welldenow, &c. have it under the tribe of Ixia, with the specific names of Scillaris, Fabricii, &c. but notwithstanding, we have no hesitation in placing it under its true genus Gladiolus. The upright character of the chives, their insertion into the tube of the blossom, and not at the mouth, the difference in the shape of the petals, the fituation of the summits behind the chives, &c. leave no room for doubt where its station should be. Although plentiful at the Cape, it has not been long an inhabitant of this clime; having slowered for the first time in the year 1797, at Bulstrode, the seat of his Grace the Duke of Portland. What contributes much to the value of this plant is, that it continues in slower at least two months, from the beginning of June till the end of July; propagates itself abundantly by the roots, which are not subject to rot, though not removed from the pots in which they have slowered. Thrives in peat earth.

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PLATE LXVII.

GERANIUM INCISUM.

Jagged-leaved Geranium.

CLASS XVI. ORDER IV.

MONODELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

Monogyna. Stigmata quinque. Fructus roftratus, 5-coccus.

ONE POINTAL. Five fummits. Fruit furnished with long awns, five dry berries.

See Geranium grandiflorum, Plate XII.

SPECIFIC CHARACTER.

Geranium foliis multifidis, crassis, confertis;
- storibus umbellatis, pedunculis longissimis;
caule erecto, fruticoso.

Geranium with leaves of many clefts, thick, and crowded together; flowers grow in bunches, on very long foot-stalks; stem upright, and shrubby.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. The Chives and Pointal, (natural fize).
- 3. The Chives cut open.
- 4. The Pointal, (magnified).

This pretty species of Geranium, from the Cape of Good Hope, is one of those having seven fertile tips; therefore a Pelargonium of Mons. L'Heritier. It is a low growing plant, seldom exceeding eight or nine inches in height, keeping very compact; but is subject to damp in the leaves, if kept moist in winter, though otherwise pretty hardy. Mr. C. Lodiges, of Hackney, first raised it from seeds which he received from Vienna, about the year 1793. It is readily propagated by cuttings, or seeds, and continues to flower all the summer months; requiring light rich earth to make it flourish.

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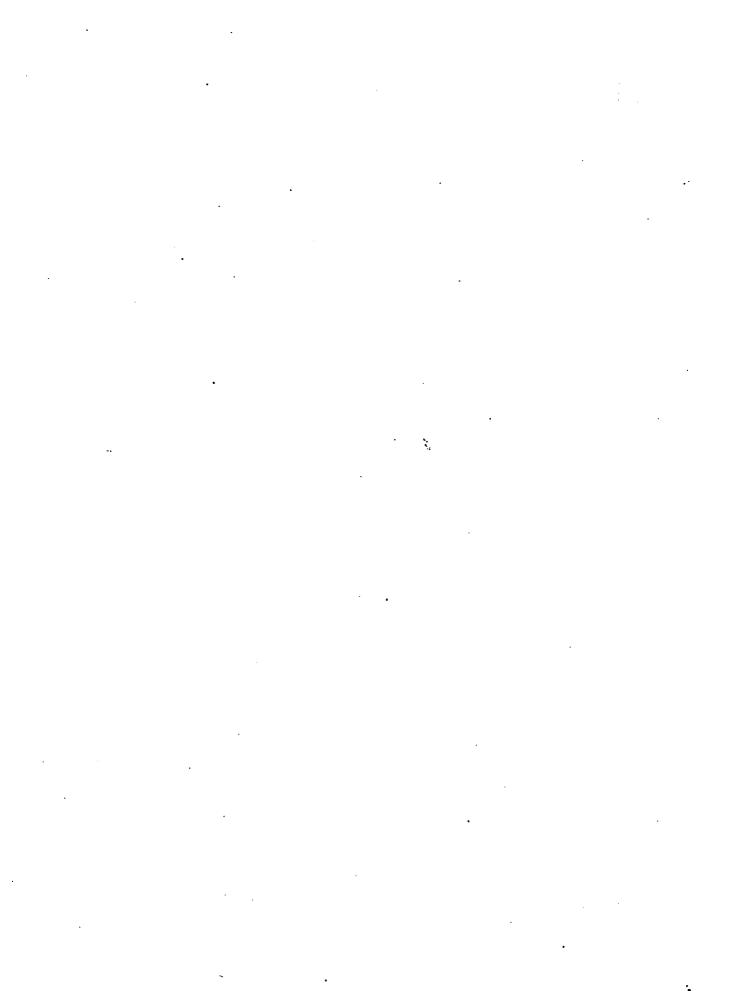




PLATE LXVIII.

GOODENIA OVATA.

Oval-leaved Goodenia.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA fupra longitudinaliter fiffa, genitalia exferens, quinquefida. Stigma urceolatum, ciliatum.

BLOSSOM longitudinally cloven on the upper fide, exposing the organs of generation, and fivecleft. Summit cup-shaped, and fringed. See GOODENIA CALENDULACEA. Plate XXII.

SPECIFIC CHARACTER.

Goodenia foliis ovatis, ferratis; corollis luteis, laciniis duobus exterioribus erectis.

Goodenia with egg-shaped leaves, sawed at the edges; blossoms yellow, the two outer segments grow upright.

REFERENCE TO THE PLATE.

- 1. The Empalement and Seed-bud.
- 2. A Bloffom, with the parts of fructification attached.
- 3. The Chives, and Pointal (magnified).

In the fecond volume of the Linnæan Transactions, Dr. Smith enumerates ten species of the genus Goodenia; this species makes an addition to the number. The oval-leaved Goodenia is a half woody plant, making long willow-like branches, which mostly decay in the winter, though a great part of the plant remains; it is a hardy greenhouse plant, requiring little trouble either to keep or propagate; the latter of which is done by cuttings. About the year 1793, a parcel of seeds was received by Messis. Lee and Kennedy, sent to them by Colonel Paterson from Port Jackson, New Holland; amongst them, the seeds of this plant; it nevertheless did not flower till the year 1798, about the month of June. It is certainly a desirable plant, never failing to flower from June till September, if kept growing in vigour, which it will surely do if planted in light peat earth.

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PLATE LXIX.

LAMBERTIA FORMOSA. Var. longifolia.

Red-flowered Lambertia. Long-leaved variety.

CLASS IV. ORDER I. TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

GENERIC CHARACTER.

CALYX. Perianthium commune, imbricatum, fquamis interioribus, longioribus.

COROLLA. Universalis uniformis, septem-florus.

Propria monopetala, tubulofa, limbus quadrifidus, laciniis revolutis, stameniferis.

STAMINA. Filamenta quatuor, fubulata, brevissima, inserta limbo corollæ, intra singulam laciniam singula. Antheræ lineares, erectæ.

Pistillum. Germen subrotundum, apice pilofum. Stylus setaceus, erectus. Stigma subulatum, sulcatum.

Pericarpium. Capfula tricornuta, unilocularis, difperma.

SEMINA bina, alata, scabra, nigra.

EMPALEMENT. Common cup tiled, the inner scales the longest.

Blossom. General regular composed of seven flowers.

Individuals of one petal, tubular, border four-cleft, the fegments rolled back, and fupporting the chives.

Chives. Threads four awl-shaped, very short, fixed into the border of the blossom, one within each segment. Tips linear, and upright.

POINTAL. Seed-bud nearly round, the upper part hairy. Shaft awn-like, upright. Summit awl-shaped, and furrowed.

SEED-VESSEL. Capfule three-horned, of one cell, and two feeds.

SEEDs two, winged, rough, and black.

SPECIFIC CHARACTER.

Lambertia foliis ternis, apice mucronato-pungentibus; corollis firiatis, extus fuave rubentibus; antheris cæruleis. Lambertia with leaves growing by threes, the ends terminating in sharp points; bloffoms striped, of a light red without; tips blue.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Blossom cut open, with the Pointal as it stands in the blossom.
- 3. One fegment of a Flower, with the Chive attached.
- 4. The Pointal (magnified).
- 5. A Capfule.
- 6. A Seed.

Or all the plants yet introduced from New Holland, that have hitherto flowered with us, this unquestionably takes the lead for beauty, considering the plant altogether. It is a hardy greenhouse plant, growing to the height of fix or eight feet before it flowers; when the blossoms break from the ends of almost every branch. The seeds of this plant were among the first which arrived from Botany Bay, in the year 1788; when two varieties of it were raised by Messrs. Lee and Kennedy, at their nursery, who were fortunate enough to procure all the seeds which came home that season. This sine genus has received its title, (under the sanction of Dr. Smith, see the Linn. Trans. page 214, vol. 3.) from Aylmer Bourke Lambert, Esq. sellow of the Royal and Linnæan Societies; a gentleman whose zeal for the advancement of the science is unbounded, and whose labours to that end, as well as his endeavours to render botany of universal benefit, by combining the useful with the pleasing; (witness his work on the Cinchonas, or Jesuits' Barks) do him the greatest credit. Our drawing was made from a plant which flowered for the first time in this kingdom, in the collection of J. Robertson, Esq. of Stockwell, Surry, in July 1798. It is without difficulty raised by cuttings, and thrives in peat earth.

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PLATE LXX.

GNIDIA SIMPLEX.

Heath-leaved Gnidia.

CLASS VIII. ORDER I.

OCTANDRIA MONOGYNIA. Eight Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX infundibuliformis, quadrifidus. Petala quatuor, calyci inferta. Semen unicum, fubbaccatum.

EMPALEMENT funnel-shaped, and four-cleft.

Petals four, interted into the empalement.

One seed, something like a berry.

See GNIDIA PINIFOLIA, Plate LII.

SPECIFIC CHARACTER.

Gnidia, foliis linearibus, acutis, lævibus; floribus terminalibus, fessilibus, luteis.

Gnidia, with linear, pointed, fmooth leaves; flowers terminating the branches, fitting close upon them, and yellow.

REFERENCE TO THE PLATE.

- 1. A Flower, (natural fize).
- 2. The same cut open, and magnified.
- 3. The Pointal, (natural fize).
- 4. The same magnified.

The flowers of this species of Gnidia; like most plants of this natural order, are fragrant, which increases much towards night. It is one of those delicate Cape plants requiring a dry stove, or an airy warm situation in the greenhouse; where it continues to flower through the months of April and May, and frequently will blossom a second time in September and October. It is easily propagated by cuttings; delighting most in peat earth, and seldom grows more than a foot high. Our drawing was made, (by his kind permission) at the beautiful and unique conservatory of R. James, Esq. Grosvenor-place, from a plant in his valuable and select collection, in May this year.

Unfortunately the G. Simplex having been introduced to our gardens before the G. Pinifolia, (see our figure, Pl. LII.) it was found in most collections under that title; but we have no hefitation in placing this plant under the specific name given it by Linnæus, in his Mantissa Plantarum of 1767, page 67; where, to the usual specific character, he has superadded an accurate description of it.

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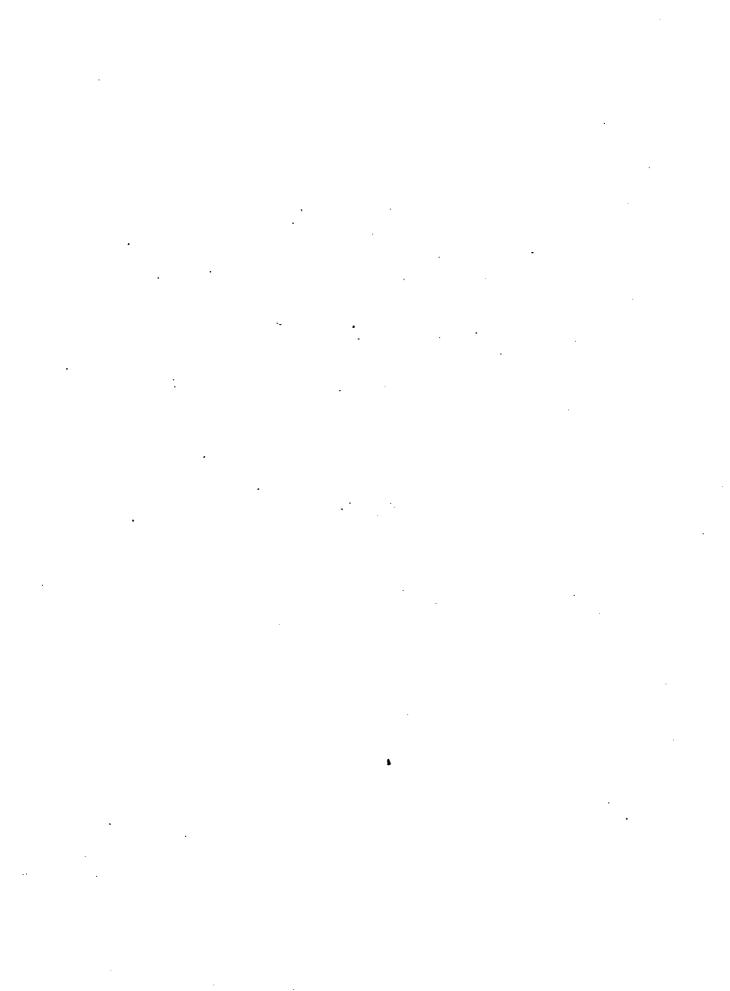




PLATE LXXI.

CLEMATIS VIORNA.

Blue thick-petal'd Virgin's Bower.

CLASS XIII. ORDER VII.

POLYANDRIA POLYGYNIA. Many Chives. Many Pointals.

GENERIC CHARACTER.

PERIANTHIUM. Calyx nullus.

COROLLA. Petala quatuor, oblonga, laxa.

STAMINA. Filamenta plurima, fubulata, corolla breviora. Antheræ lateri filamentorum adnatæ.

Pistillum. Germina plurima, fubrotunda, compressa, definentia in stylos subulatos, staminibus longiores. Stigmata simplicia.

Pericarpium nullum. Receptaculum capitatum, parvum.

Semina plurima, fubrotunda, compressa, stylo (figura varia) instructa.

EMPALEMENT. Cup none.

BLOSSOM. Petals four, oblong, flexible.

CHIVES. Threads many, awl-shaped, shorter than the blossom. Tips fixed to the sides of the threads.

POINTAL. Seed-buds many, nearly round, flattened, ending in awl-shaped shafts, longer than the chives. Summits simple.

SEED-VESSEL none. Receptacle forming a round head, and fmall.

SEEDs many, roundish, flattened, retaining the shaft, which is variously shaped.

SPECIFIC CHARACTER.

Clematis foliis compositis decompositisque; foliolis quibusdam trisidis; sloribus violaceis, coriaceis. Virgin's Bower, with compound and doubly compound leaves; fome of the little leaves split into three; flowers blue, and tough.

REFERENCE TO THE PLATE.

- 1. The Chives, and Pointals; the petals being removed.
- 2. The Pointals.
- 3. A Chive, (magnified).
- 4. A Pointal, (magnified).
- 5. A Seed nearly ripe, (natural fize).

Doubts have been entertained, among some botanists, whether this plant is the Clematis viorna of Linnæus, as given by him, with various synonims, in his Sp. Plan. By collating the different specific characters from the synonims adopted by him, we have no hesitation in our decision. Being a native of Virginia and Carolina, it is not so hardy as some others from the northern parts of Europe or America; but, nevertheless, is not killed by our winters, as it is herbaceous, and not making its shoots till late. In a warm situation against a wall or trellis, it will begin to blossom in July, and continue to flower till destroyed by the frost. As yet it is rather scarce in our gardens, being but of a late introduction, though long known by description. Our figure was taken at the Hammersmith nursery, where it is in high persection, being planted in a mixture of loam and peat earth: it is most readily increased, by parting the roots in spring; as the seeds seldom come to maturity in this climate.

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Stypholia toiflora

PLATE LXXII. STYPHELIA TRIFLORA.

Three-flowered Styphelia.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

GENERIC CHARACTER.

Perianthium. Calyx imbricatus, persistens; foliolis interioribus longioribus, acutis, erectis.

COROLLA tubulosa, quinquesida; laciniis revolutis, hirsutis.

Nectarium membranaceum, lacerum, germen cingens.

STAMINA. Filamenta quinque, tubo inserta.

Antheræ apice bifidæ, versatiles.

PISTILLUM. Germen globofum, fulcatum, nectario cinctum. Stylus capillaris. Stigma capitatum, quinquepartitum.

Pericarpium. Drupa quinquelocularis, fubrotunda, glabra.

SEMINA, bina.

EMPALEMENT. Cup tiled, and remaining; the inner leaves the longest, sharp-pointed, and upright.

Blossom tubular, five-cleft; the segments rolled back, and hairy.

Honey-cup skinny, torn, and surrounding the seed-bud.

CHIVES. Five threads, fixed into the tube of the bloffom. Tips split at the top, and loosely fixed by the middle to the threads.

POINTAL. Seed-bud globular, furrowed, encircled by the honey-cup. Shaft hair-like. Summit headed, and of five divisions.

SEED-VESSEL. A pulpy fruit with five cells, roundish, and smooth.

SEEDS, two together.

SPECIFIC CHARACTER.

Styphelia, foliis imbricatis, fparfis, glaucis, ovato-mucronatis; floribus axillaribus, ternis.

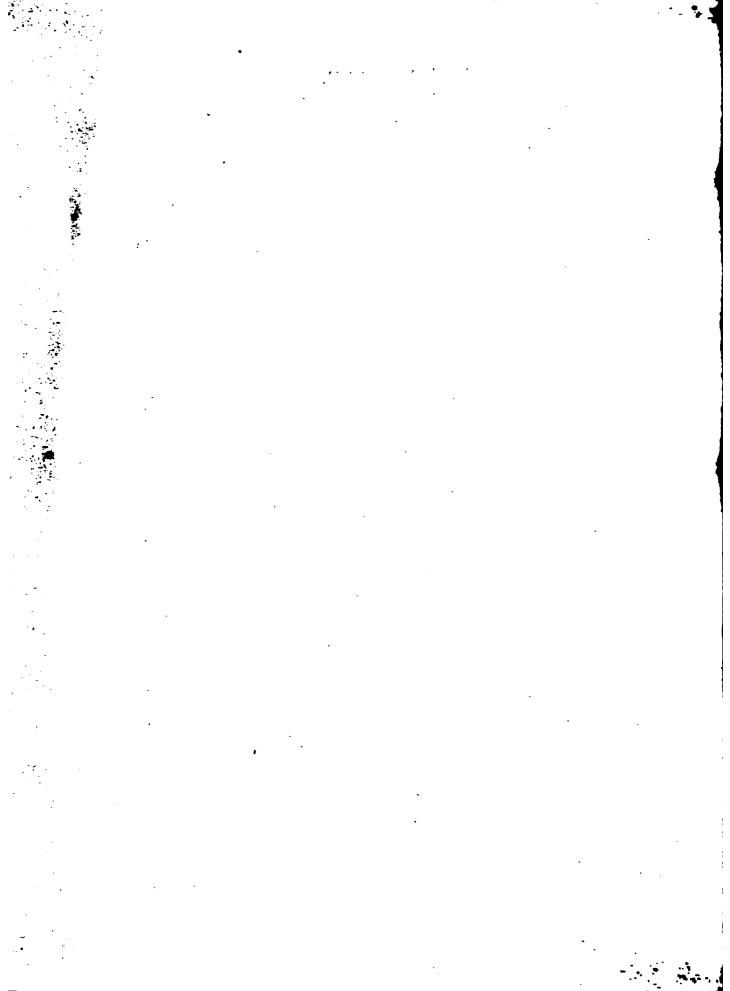
Styphelia, with leaves tiled, scattered, bluish, egg-shaped, and sharp-pointed; slowers growing from the lower part of the leaves by threes.

REFERENCE TO THE PLATE.

- 1. The Empalement.
- 2. A Flower cut open, with the Chives remaining attached, to shew their insertion into the tube of the Blossom.
- 3. The Pointal, (natural fize,) the Summit detached, and magnified.
- 4. The Honey-cup, (magnified).

The Styphelias conflitute a very extended tribe of plants, indigenous only to New Holland; we are indebted to the pupil of Linnæus, the celebrated Dr. Solander, for this generic title, which, (as Dr. Smith has fairly observed) is expressive of the habit of this whole genus, having its origin in στυφελὸς, barsh, or hard; a character which seems invariable in every species that has come under our notice. The S. tubisflora, although set off by Dr. Smith, in his fourth number of New Holland Botany, with so much grace, must, (and we have no doubt of his concurrence) give place to S. trissora, which undoubtedly claims the palm from all its congeners hitherto discovered. The only specimen alive or dead, and from which our sigure was taken, of this plant, which has come to our knowledge, is to be sound in the extensive collection of G. Hibbert, Esq. Clapham-common; from whose exertions the exotic collections of this kingdom, are likely to acquire such considerable additions.

The S. triflora was raised from seed at Clapham in 1796, but did not flower till this year, in the month of June, continuing in blossom through July, and part of August. It grows to the height of near three seet, branching but little; the whole stem being hid by the leaves. Mr. Allen the gardener, to whose kind communications we are much indebted, informs us he has kept it in peat earth, and that he thinks it is to be raised by cuttings.



I N D E X

TO THE PLANTS CONTAINED IN VOL. I.

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Plate 1	Cortufa Matthioli	Alpine Sanicle.	Har. G. H.	Herb. Shrub.	May, June. All Summer.
2	Neottia speciosa	Star-flowered Sprengelia	н. н.	Herb.	March, April.
3 4	Rhododendron Dauricum.	Dauric Rhododendron.	Har.	Shrub.	April, May.
5	Gladiolus longiflorus	Long-flowered Gladiolus.	G. H.	Herb.	June, July.
ĕ	Hemerocallis czerulea	Blue Day Lily	н. н.	Herb.	Septem. or Feb.
7	Primula Cortufoides	Siberian Primrose	Har.	Herb.	June, July.
8	Gladiolus alatus	Wing-flowered Gladiolus	G. H.	Herb.	May, June.
9	Atragene Capenfis	Cape Atragene.	G. H.	Shrub.	March, April.
10	Aristea cyanea.	Blue-flowered Ariftea	G. H.	Herb.	July, August.
11	Gladiolus rofeus.	Rose-coloured Gladiolus	G. H.	Herb.	May, June.
12	Geranium grandiflorum.	Largest-flowered Geranium.	G. H.	Shrub.	July, August.
13	Epidendrum cochleatum	Purple-flowered Epidendrum	H. H. G. H.	Herb. Herb.	July.
14 15	Anthyllis erinacea.	Blue Broom of Spain.	G. H.	Shrub.	May, June. April, May,
16	Azalea Pontica.	Yellow Pontic Azalea.	Har.	Shrub.	May, June.
17	Protea formola	Coronet Protea.	G. H.	Shrub.	August.
18	Corræa alba	White Correa.	G. H.	Shrub.	April, May.
19	Gladiolus verficolor	Changeable Gladiolus	G. H.	Herb.	June.
20	Echium grandiflorum	Large-flowered Viper's Bugloss	G. H.	Shrub.	April, May.
21	Vercia crenata	Scolloped-leaf Vereia	н. н.	Shrub.	July.
22	Goodenia calendulacea	Cape Marygold-leaved Goodenia	G. H.	Shrub.	August.
23	Ixia capitata. Var. ovata	Bunch-flowering Ixia. Var. egg-shaped.	G. H.	Herb.	April.
24	Cineraria aurita.	Two-coloured-leaved Cineraria	G. H.	Herb.	All Summer.
25	Camellia Japonica. Var. flo. albo pleno.	Double white Camellia	G. H.	Shrub.	Octob. Novem.
26	Caffula odoratiffima	Sweet-scented Craffula	G. H. G. H.	Shrub. Herb.	April, May.
27 28	Gladiolus ringens. Var. cinereo odorato. Geranium elegans	Gaping Ash-coloured sweet Gladiolus Round-leaved Geranium	G. H.	Shrub.	June. May.
29	Ixia sp cata. Var. viridi nigra	Sea-green spiked Ixia.	G. H.	Herb.	May, June.
30	Vaccinium Arctoftaphyllus.	Madeira Whortle-berry.	Har.	Shrub.	July, August.
31	Borbonia cordata.	Heart-shape-leaved Borbonia	G. H.	Shrub.	July.
32	Antholyza ringens	Gaping Antholyza	G. H.	Herb.	June.
33	Diofma latifolia	Broad leaved Diofma	G. H.	Shrub.	August.
34	Chelone Ruellioides	Scarlet Chelone	Har.	Herb.	August.
35	Ixia crispisolia. Var. sto. czeruleo	Crisped-leaved Ixia, blue variety	G. H.	Herb.	July.
36	Rhododendron punctatum,	Dotted-leaved Rhododendron	Har.	Shrub.	July.
37	Geranium fragile.	Brittle-stalked Geranium	G. H.	Shrub.	August.
38	Gladiolus przecox. Var. flore rubro	Red early-flowering Gladiolus	G. H.	Herb.	April.
39	Echium ferociffimum.	Prickly Viper's Buglos	G. H. Har.	Shrub. Herb.	July.
40	Chelone campanuloides	Bell-flowered Chelone	G. H.	Herb.	August, Septem. September.
41 . 42	Orchis ciliaris.	Fringed Orchis.	Har.	Herb.	July.
43	Bignonia Leucoxylon.	Oleander-flowered Trumpet Flower	Н. Н.	Shrub.	July.
44	Ixia cinnamomea	Cinnamon-smelling Ixia	G. H.	Herb.	June.
45	Iris longifolia	Long-leaved Iris	G. H.	Herb.	June.
46	Massonia violacea	Purple-flowered Maffonia	G. H.	Herb.	September.
47	Musa coccinea.	Scarlet-flowered Plantain-tree	н. н.	Shrub.	Decem. Jan.
48	lxia bulbifera. Var. flo. luteo	Bulb-bearing Ixia. Var. yellow-flowered.	G. H.	Herb.	May.
49	Malpighia craffifolia	Thick-leaved Malpighia.	н. н.	Shrub.	September.
50	Ixia capitata. Var. flore aurantio	Bunch-flowering Ixia. Var. gold colour.	G. H.	Herb. Shrub.	May.
Şī	Keranthemum speciocissimum	Largest-flowering Everlasting Flower Pine-leaved Gnidia.	G. H. G. H.	Shrub.	September. Feb. March.
52 53	Mimofa stricta.	Harsh-leaved upright Mimosa.	G. H.	Shrub.	March, April.
· 54	Aletris sarmentosa.	Creeping-rooted Bailard Aloe.	G. H.	Herb.	Decem. Jan.
55	Zinnia violacea.	Purple Zinnia.	Har.	Ann.	August, Sept.
5 6	Antholyza spicata	Spike-flowered Antholyza	G. H.	Herb.	June.
57	Mesembryanthemum glabrum	Smooth-leaved annual Fig Marygold	G. H.	·Ann.	July.
58	Boronia pinnata	Hawthorn-scented Boronia	G. H.	Shrub.	All Summer.
59	Ixia fistulosa.	Hollow-leaved Ixia.	G. H.	Herb.	June.
60	Geranium punctatum	Dotted-flowered Geranium.	G. H.	Herb.	April.
61	After dentatus.	Toothed-leaved Starwort.	G. H.	Shrub.	All Summer.
61 61	Gladiolus gramineus	Grass-like Gladiolus.	G. H. G. H.	Herb.	May, June.
64	Pæonia albiflora.	Climbing Usteria	Har.	Bien. Herb.	All Summer.
65	Ophrys lilifolia.	Lily-leaved Ophrys	Har.	Herb.	June. July.
66	Gladiolus polyftachius.	Branching Gladiolus.	G. H.	Herb.	July.
67	Geranium incifum.	Jagged-leaved Geranium.	G. H.	Shrub.	All Summer.
68	Goodenia ovata.	Oval-leaved Gooden a.	G. H.	Shrub.	Auguft, Sept.
69	Lambertia formosa. Var. longifolia	Red-flowered Lambertia. Long-leaved var.	G. H.	Shrub.	July.
70	Gnidia simplex	Heath-leaved Gnidia	G. H.	Shrub.	April, Sept.
71	Clematis viorna.	Blue thick-petal'd Virgin's Bower	Har.	Herb.	All Summer.
. 72	Styphelia triflora	Three-flowered Styphelia	G. H.	Shrub.	June.
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